

PVM-8200T


US and Canadian Model

Chassis No. SCC-248B-A




TRINITRON® COLOR VIDEO MONITOR

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UN TRAMÉ ET UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES, LES VUES EXPLODÉES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DU CIRCUIT QUI SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT SONT IDENTIFIÉS DANS CE MANUEL. SUIVRE LES PROCÉDURES QUAND LES COMPOSANTS CRITIQUES SONT REMPLACÉS OU LE FONCTIONNEMENT IMPROPRE EST SUSPECTÉ.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

SPECIFICATIONS

Television System:	EIA standard
Color System:	NTSC
Picture Tube:	20.3 cm, 8" (screen measured diagonally), 70° deflection TRINITRON system
Semiconductors:	1 IC, 63 transistors and 46 diodes
Video System:	R. G. B. cathode drive
Video Input:	0.7 Vp-p non-composite or 1 Vp-p composite video signal ± 6 dB positive
Sync Input:	4 Vp-p ± 6 dB negative
Video/Sync Input Impedance:	High-impedance for loop-through 75 Ω terminated
Anode Voltage:	18 kV at zero beam current
Power Requirements:	120 V ac, 50/60 Hz

— Continued on next page —

SONY®

SERVICE MANUAL

Power Consumption: 48 W ac (max.)

Dimensions: Approx. 216 (w) x 229 (h) x 521 (d) mm
8 ½ (w) x 9 ⅛ (h) x 20 ½ (d) inches
including projecting parts and controls
Approx. 216 (w) x 220 (h) x 521 (d) mm
8 ½ (w) x 8 ⅝ (h) x 20 ½ (d) inches
excluding bottom feet

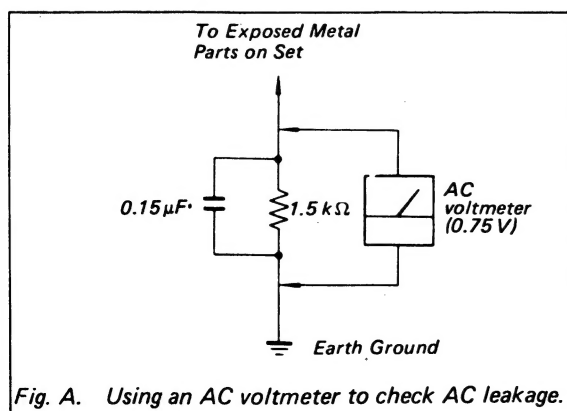
Weight: Approx. 12 kg (26 lb 7 oz)

Supplied Accessories: Number plates
Instruction manual

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).
Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.



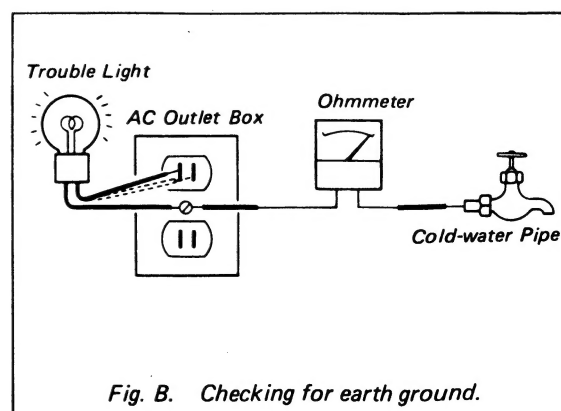
LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

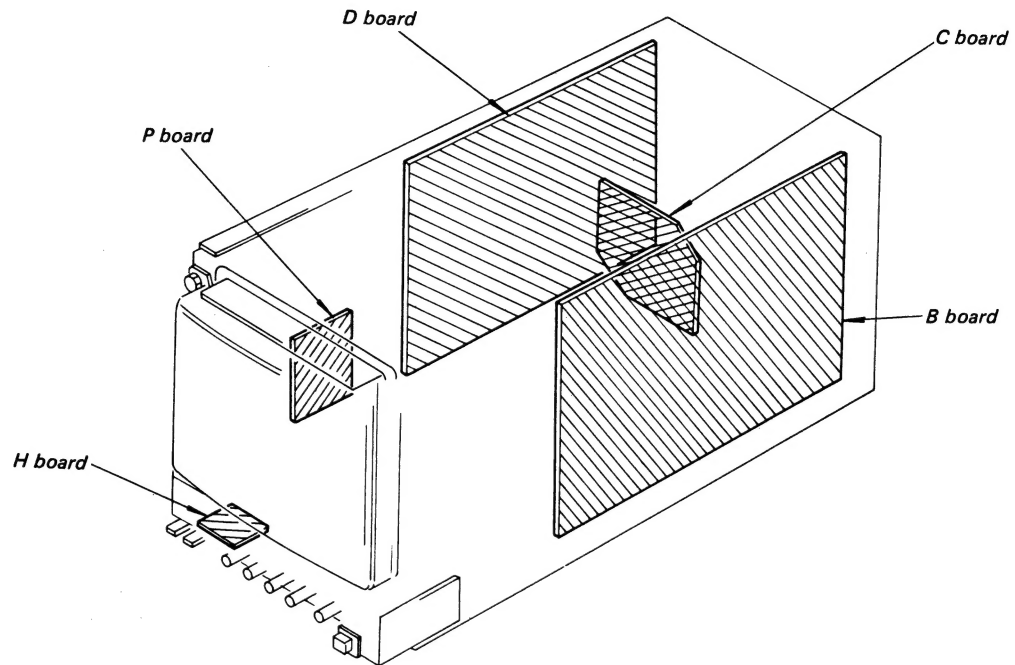
1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

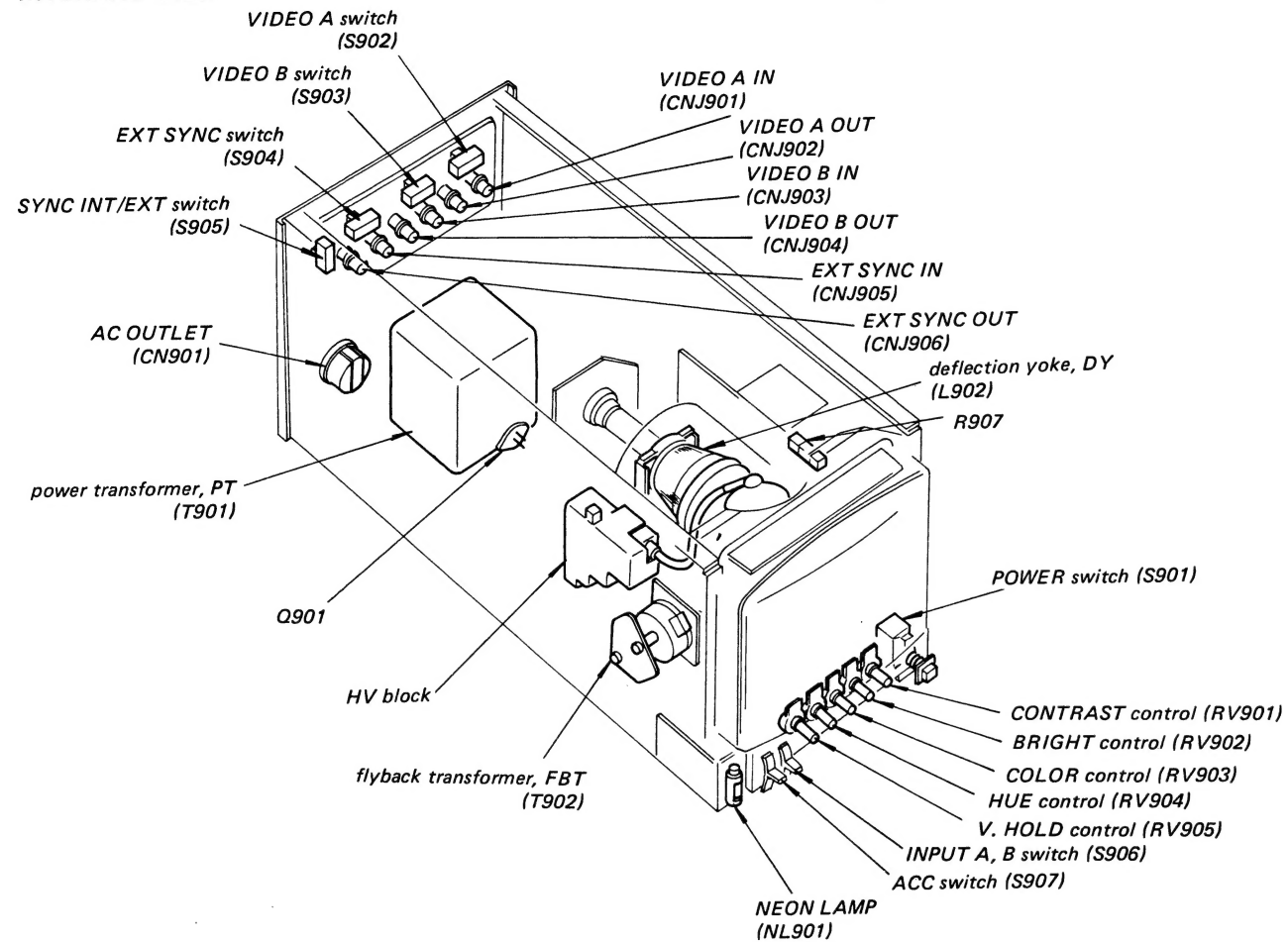


CIRCUIT BOARDS LOCATION



SECTION 1 OUTLINE

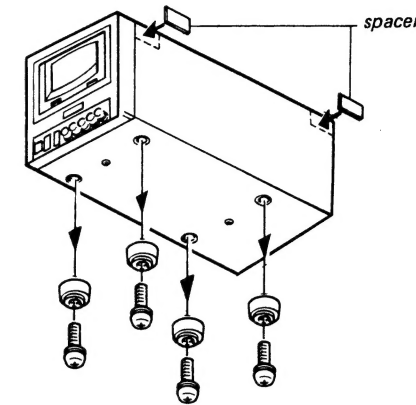
1-1. INTERNAL VIEW



1-2. MOUNTING INSTRUCTION OF MB-500A

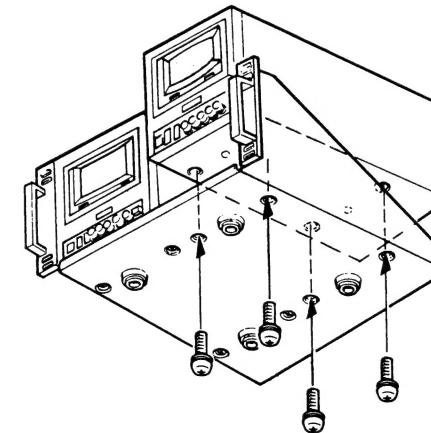
If one monitor is joined to another, use a mounting bracket MB-500A.

- ① Remove the bottom feet and screws (⊕PS3 x 10).

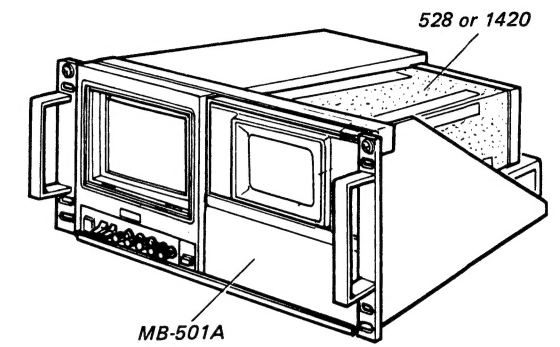


- Stick two supplied spacers on one side of the upper case that faces the other monitor.

- ② Fix two monitors to the mounting bracket by supplied screws (⊕PS3 x 10).



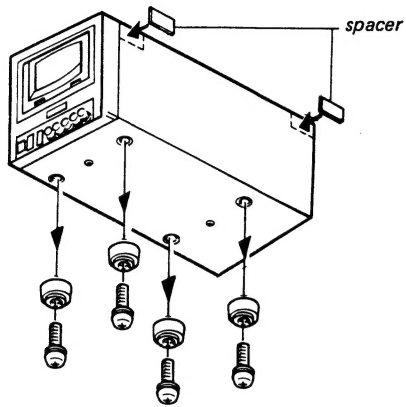
- In place of the monitor, a TEKTRONIX model 528 waveform monitor or model 1420 vectorscope can be installed into the bracket by using the optional MB-501A mounting attachment.



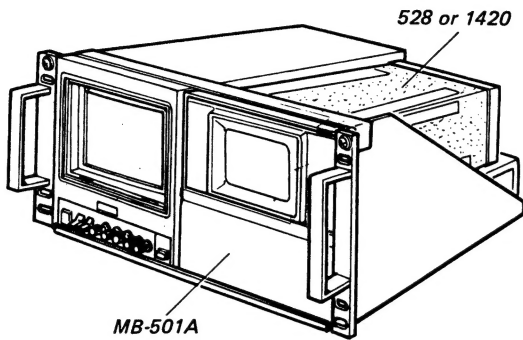
1-2. MOUNTING INSTRUCTION OF MB-500A

If one monitor is joined to another, use a mounting bracket MB-500A.

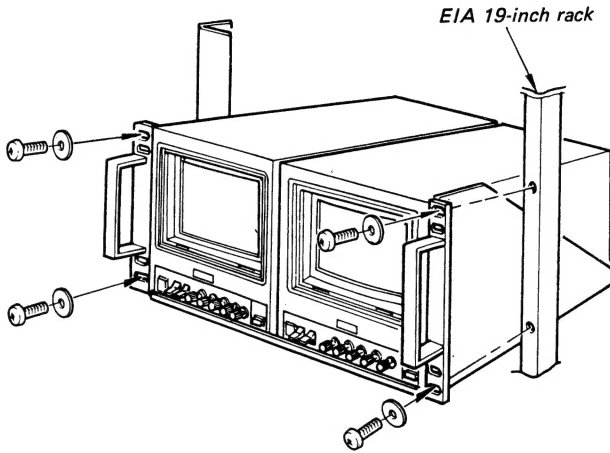
- ① Remove the bottom feet and screws (⊕PS3 x 10).



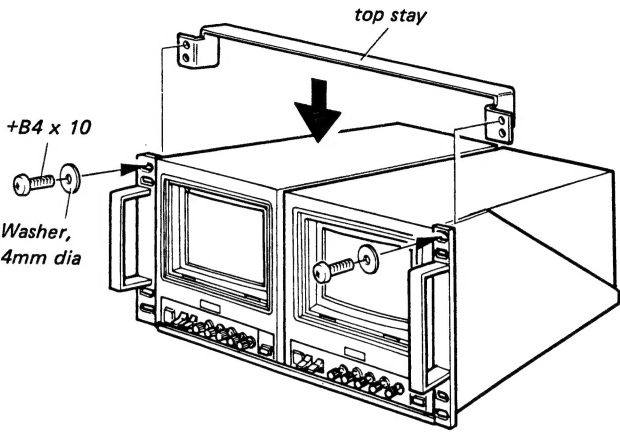
- In place of the monitor, a TEKTRONIX model 528 waveform monitor or model 1420 vectorscope can be installed into the bracket by using the optional MB-501A mounting attachment.



- ③ Install the mounting bracket in an EIA standard 19-inch rack as illustrated below. If necessary, remove the bottom feet from the mounting bracket.



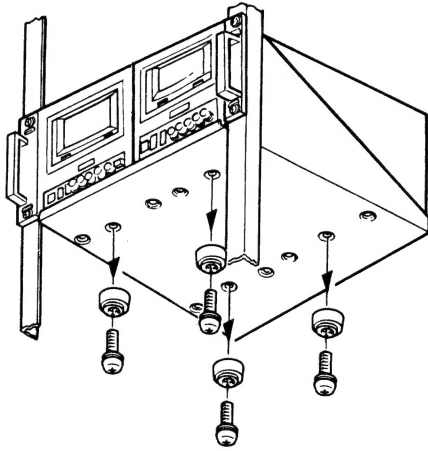
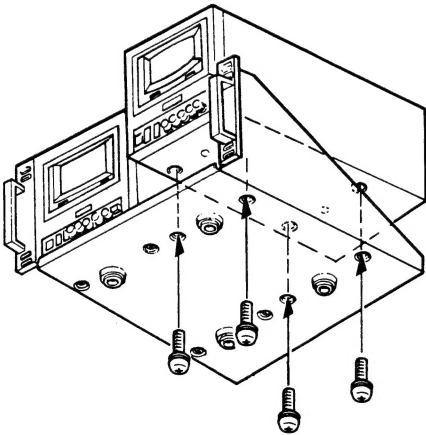
- If rack mounting is not necessary, install the supplied top stay and use the monitor without removing the bottom feet so as not to close the bottom ventilators.



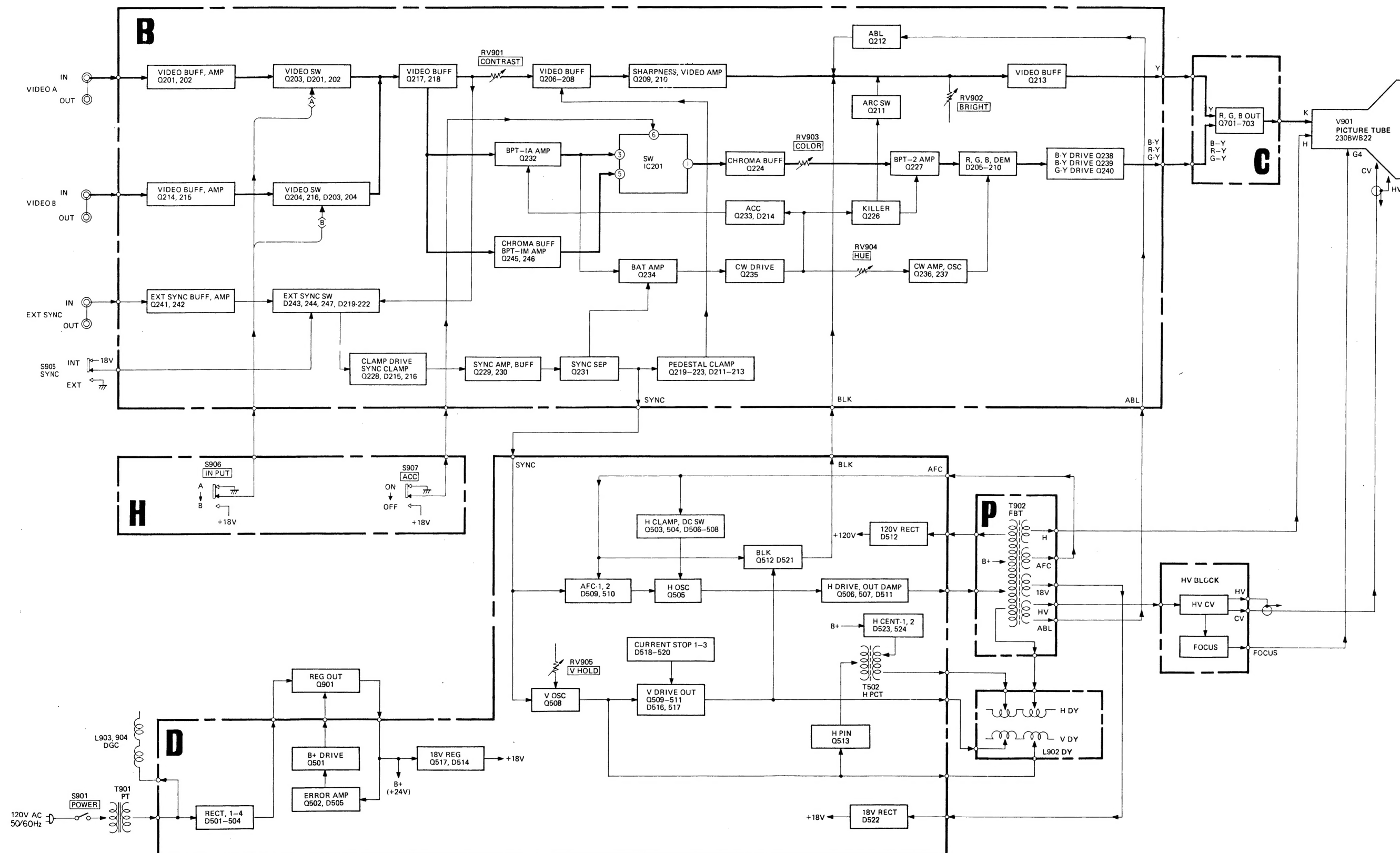
1 (RV901)
'V902)
'903)

05)

- Stick two supplied spacers on one side of the upper case that faces the other monitor.
- ② Fix two monitors to the mounting bracket by supplied screws (⊕PS3 x 10).



1-3. BLOCK DIAGRAM



2-1. PIC

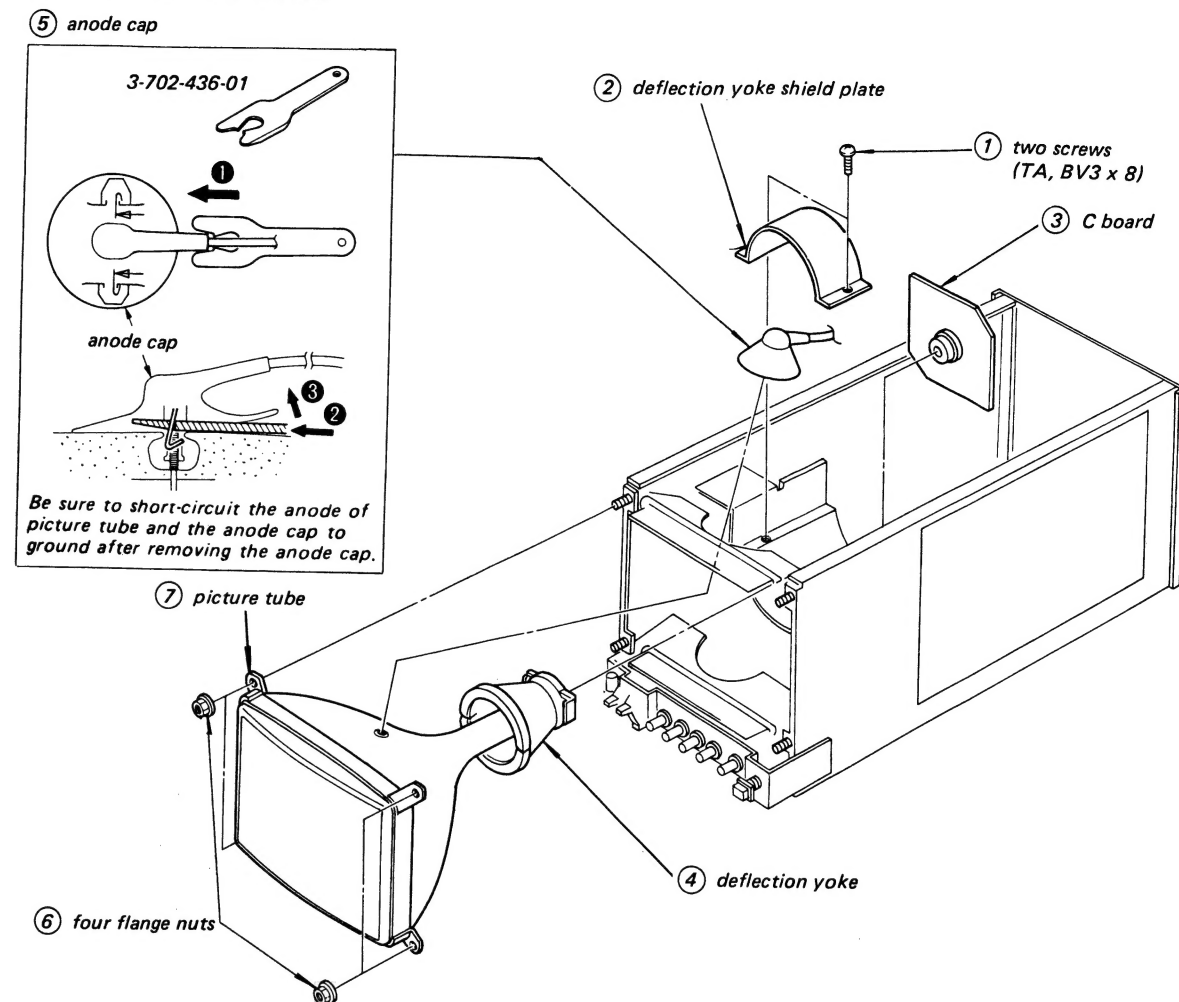
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2-2. HV

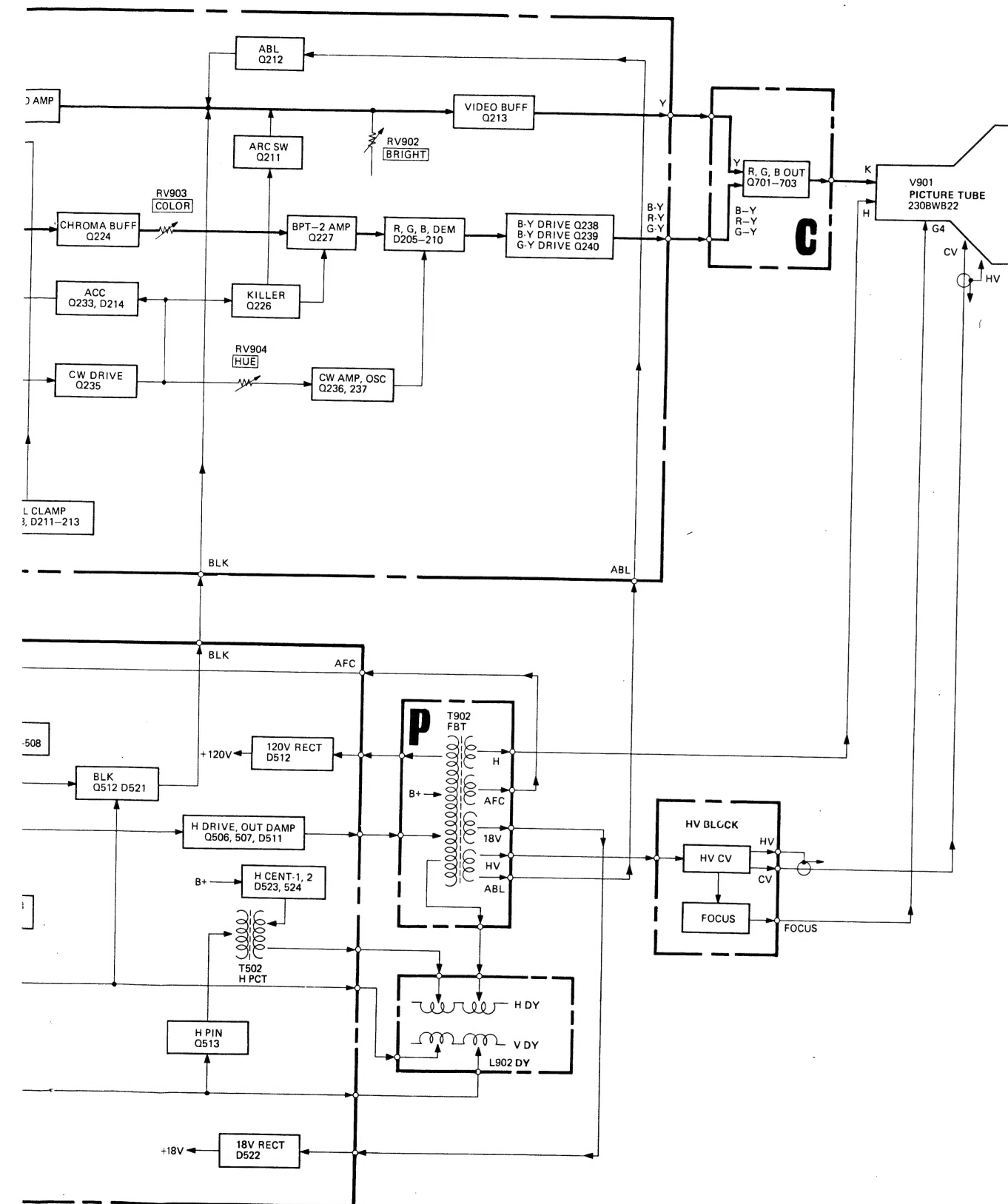
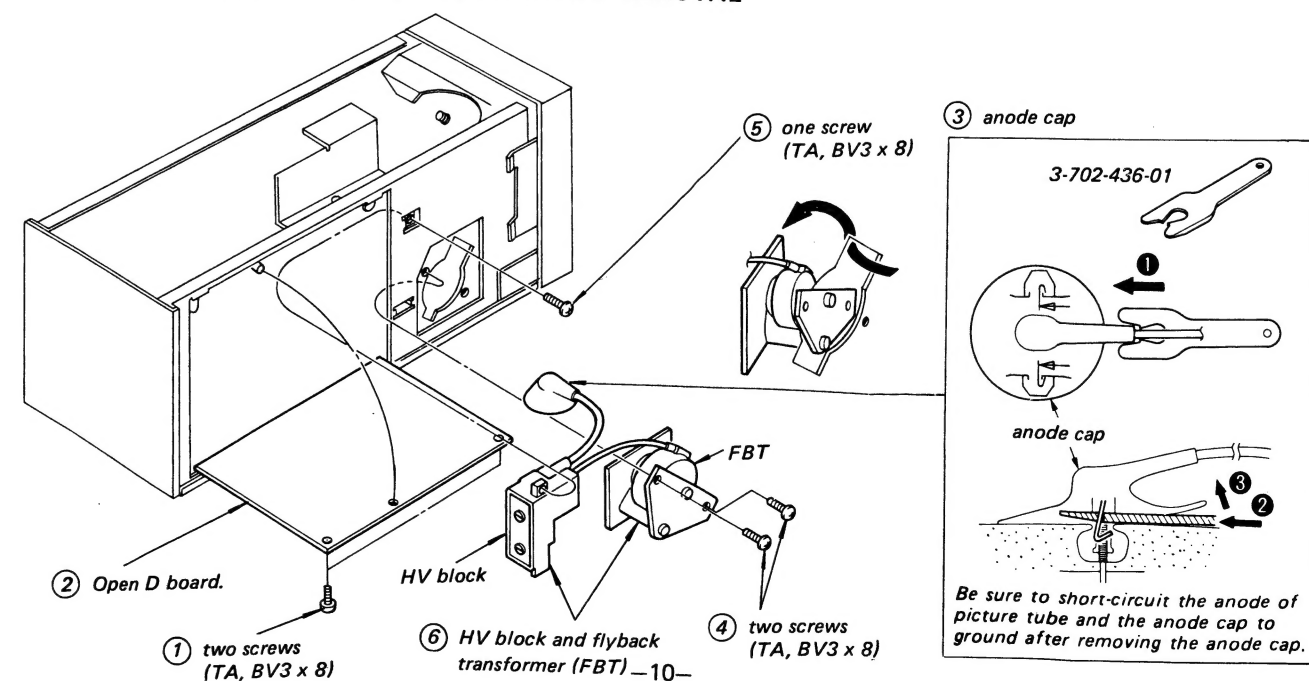
2

SECTION 2 DISASSEMBLY

2-1. PICTURE TUBE REMOVAL



2-2. HV BLOCK AND FLYBACK TRANSFORMER REMOVAL



SECTION 3 SETUP ADJUSTMENTS

SCC-248B-A

PVM-8200T PVM-8200T

SCC-248B-A

Note: (1) Remove the deflection yoke shield plate for the following adjustments and be sure to install it after adjustments.

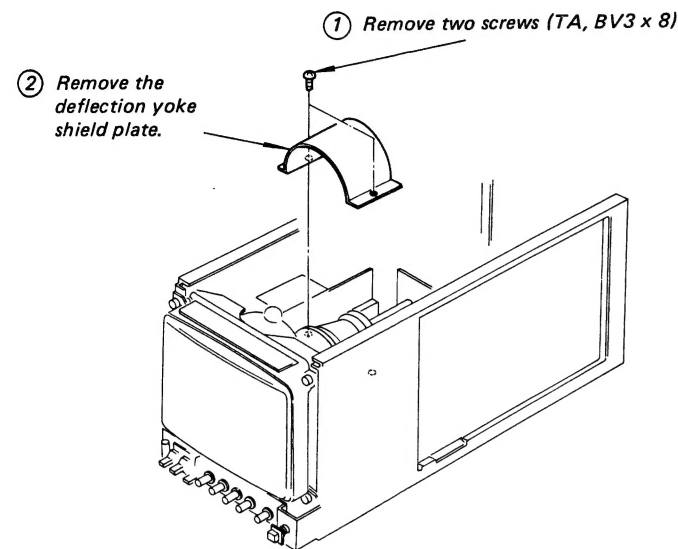


Fig. 3-1

- (2) The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- (3) These adjustments should be performed with the rated power supply voltage unless otherwise noted.

Controls and switches should be set as follows:

CONTRAST control } maximum
BRIGHT control } (fully clockwise)

Make the following adjustments in the order given.

1. Beam Landing
2. Focus
3. Convergence
4. White Balance

Note: Test Equipment Required.

1. Color-bar/Pattern Generator
2. Degausser
3. Video tuner SONY Model "VTU-200" or equivalent.

3-2. FOCUS

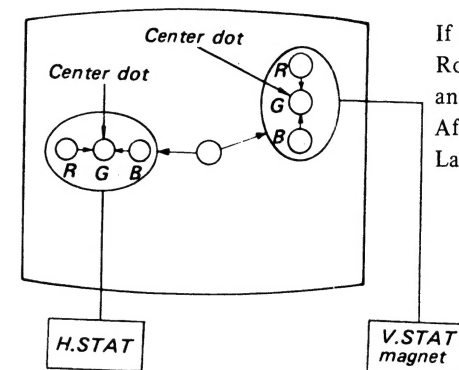
Adjust FOCUS control for best focus.

3-3. CONVERGENCE

Preparation:

- Before starting, perform FOCUS, and V. SIZE adjustments.
- Turn BRIGHT control fully counterclockwise, and set CONTRAST control to mechanical center.
- Feed in the dot pattern.

(1) Horizontal and Vertical Static Convergence



If blue dot does not coincide with red and green dots; Rotate BMC magnet tabs to correct insufficient H and V static convergence. After rotating the BMC magnet tabs, perform Beam Landing Adjustment.

3-1. BEAM LANDING

Preparation:

- Feed in the white pattern signal to VIDEO IN/OUT connector through video tuner from color-bar/pattern generator.
 - Before starting, degauss the entire screen.
1. Loosen deflection yoke screw.
 2. Remove deflection yoke spacers.
 3. Adjust purity magnet tabs as shown in Fig. 3-2.
 4. Slide deflection yoke as far forward as it will go.
 5. Disconnect leads 7 and 8 on the C board.
 6. Adjust purity magnet tabs to center vertical green band as shown in Fig. 3-3.
 7. Slide deflection yoke back for a uniform green screen.
 8. Check red and blue rasters for uniformity by performing the same way as steps 4, 5 and 6.
 - To get a uniform red screen, ..connect lead 7 and disconnect leads 6 and 8 on the C board.
 - To get a uniform blue screen, ..connect lead 8 and disconnect leads 6 and 7 on the C board.
- After these checks, connect the leads 6, 7 and 8.

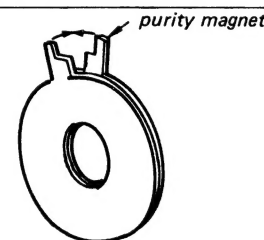


Fig. 3-2

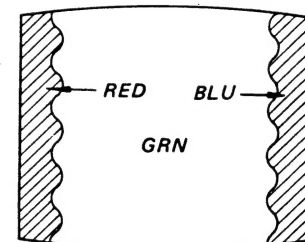


Fig. 3-3

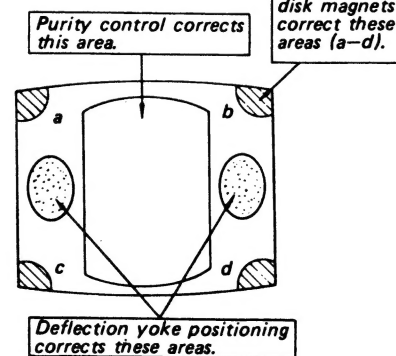


Fig. 3-4

9. Tighten the deflection yoke screw.
10. Install the deflection yoke spacers.

-11-

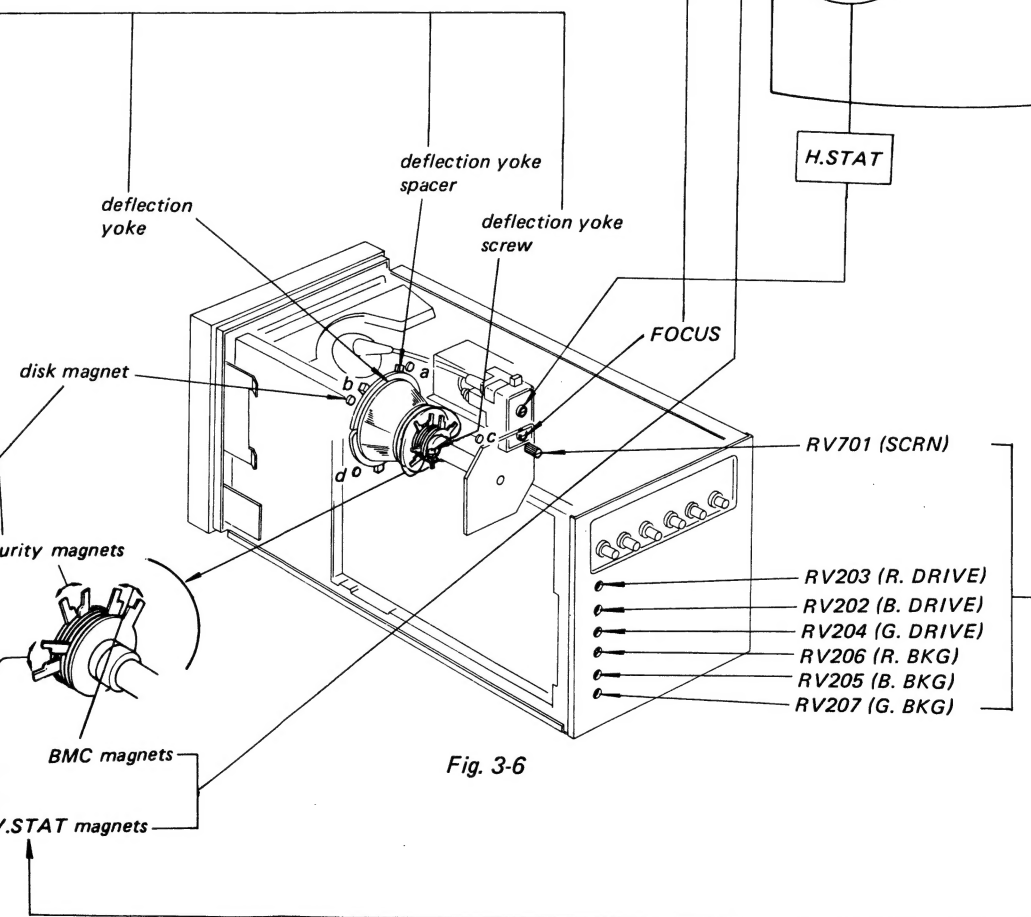


Fig. 3-6

11. Check if mislanding appears at corners a-d as shown in Fig. 3-4. If mislanding is observed, correct it as shown in Fig. 3-4.
12. Confirm that beam landing is correct when the receiver is faced in all directions.

3-4. WHITE BALANCE

1. Turn COLOR, BRIGHT and CONTRAST controls fully counterclockwise.
2. Turn R. DRIVE (RV203), G. DRIVE (RV204) and B. DRIVE (RV202) controls fully clockwise.
3. Set R. BKG (RV206), G. BKG (RV207) and B. BKG (RV205) controls to mechanical center.
4. Turn SCRN (RV701) control slowly to obtain a faintly visible cross-hatch. Note the color that first becomes visible by turning SCRN control. Do not turn a BKG control for this color.
5. Adjust the other two BKG controls for best white balance (neutral gray) of the faint cross-hatch.
6. Turn BRIGHT and CONTRAST controls fully clockwise. Observe the screen and adjust the DRIVE controls for best white balance.
7. Repeat Steps 1 through 6 several times.

-12-

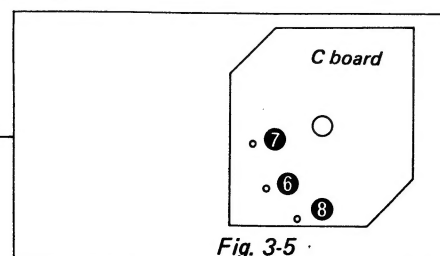


Fig. 3-5

3-2. FOCUS

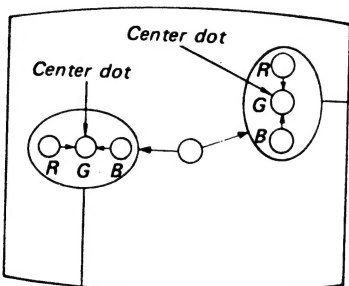
Adjust FOCUS control for best focus.

3-3. CONVERGENCE

Preparation:

- Before starting, perform FOCUS, and V. SIZE adjustments.
- Turn BRIGHT control fully counterclockwise, and set CONTRAST control to mechanical center.
- Feed in the dot pattern.

(1) Horizontal and Vertical Static Convergence



If blue dot does not coincide with red and green dots; Rotate BMC magnet tabs to correct insufficient H and V static convergence. After rotating the BMC magnet tabs, perform Beam Landing Adjustment.

H.STAT

V.STAT magnet

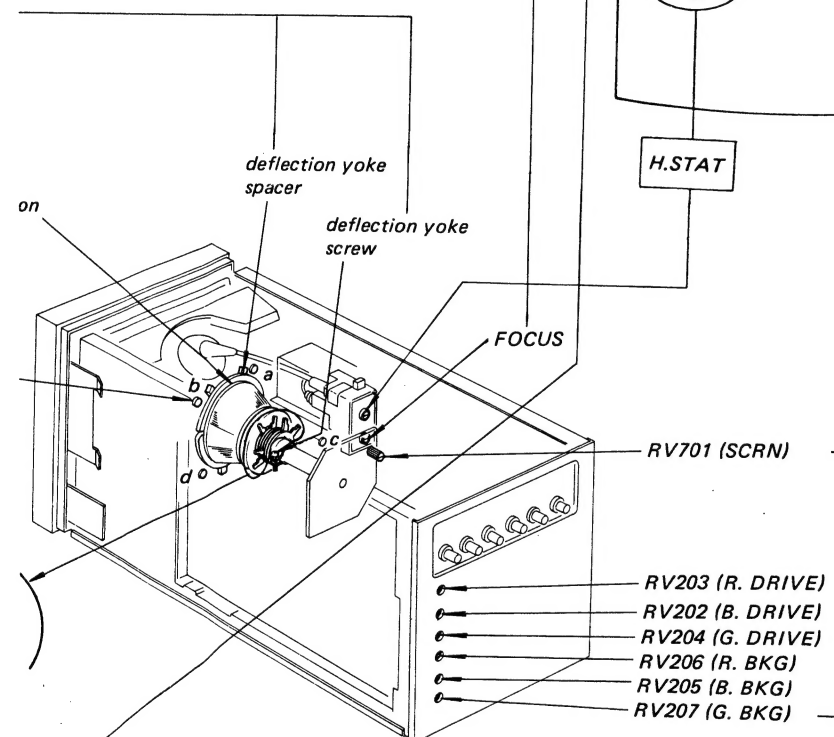


Fig. 3-6

3-4. WHITE BALANCE

1. Turn COLOR, BRIGHT and CONTRAST controls fully counterclockwise.
2. Turn R. DRIVE (RV203), G. DRIVE (RV204) and B. DRIVE (RV202) controls fully clockwise.
3. Set R. BKG (RV206), G. BKG (RV207) and B. BKG (RV205) controls to mechanical center.
4. Turn SCRN (RV701) control slowly to obtain a faintly visible cross-hatch. Note the color that first becomes visible by turning SCRN control. Do not turn a BKG control for this color.
5. Adjust the other two BKG controls for best white balance (neutral gray) of the faint cross-hatch.
6. Turn BRIGHT and CONTRAST controls fully clockwise. Observe the screen and adjust the DRIVE controls for best white balance.
7. Repeat Steps 1 through 6 several times.

(2) Dynamic Convergence Adjustment

Preparation:

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.
1. Loosen deflection yoke screw.
 2. Remove deflection yoke spacers.
 3. Move the deflection yoke for best convergence as shown in Fig. 3-7.
 4. Tighten the deflection yoke screw.
 5. Install the deflection yoke spacers.

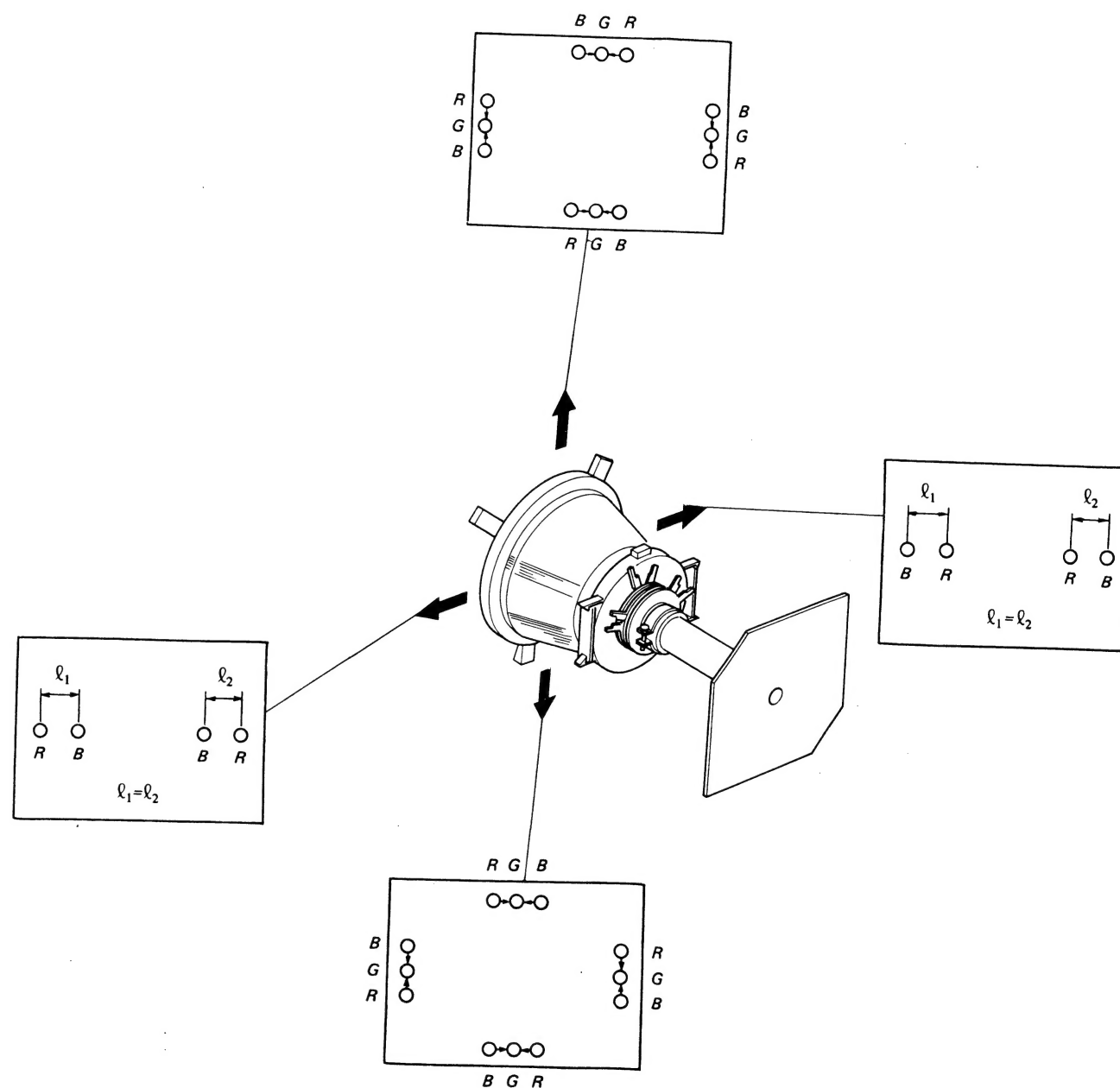


Fig. 3-7

SECTION 4
CIRCUIT ADJUSTMENTS

Note: (1) TEST EQUIPMENT REQUIRED

- 1. Oscilloscope
- 2. Variable autotransformer
- 3. Digital multimeter
- 4. Color-bar/pattern generator
- 5. Video tuner SONY Model "VTU-200" or equivalent
- 6. Regulated-dc power supply

(2) INPUT SIGNAL

When making these adjustments, feed a crosshatch, color-bar or dots pattern signal to VIDEO IN/OUT connector through video tuner.

(3) CONTROL AND SWITCH SETTINGS

Controls and switch should be set as follows when making adjustments unless otherwise noted.

CONTRAST control
HUE control
BRIGHT control
COLOR control
ACC switch ON

(4) These adjustments should be performed with the rated power supply voltage unless otherwise noted.

(5) CIRCUIT ADJUSTMENTS

Adjustment	Circuit Board	Page
BAT	B	12, 13, 14
COLOR GAIN		
HUE		
SHARP		
3.58MHz TRAP		
ACC	D	15, 16, 17
■ R535 adjustment		
B+ adjustment		
■ R511 adjustment		
H. FREQ		
PINCUSHION AMP		

4-1. B BOARD ADJUSTMENTS

BAT

1. Feed in a color-bar signal to VIDEO IN/OUT connector through video tuner from the color-bar/pattern generator.

2. Adjust T205 for minimum level as shown.

oscilloscope

Minimize level.

COLOR GAIN

1. Feed in a strong off-air signal to VIDEO IN/OUT connector through video tuner.

2. Set ACC switch to OFF.

3. Set COLOR control to mechanical center.

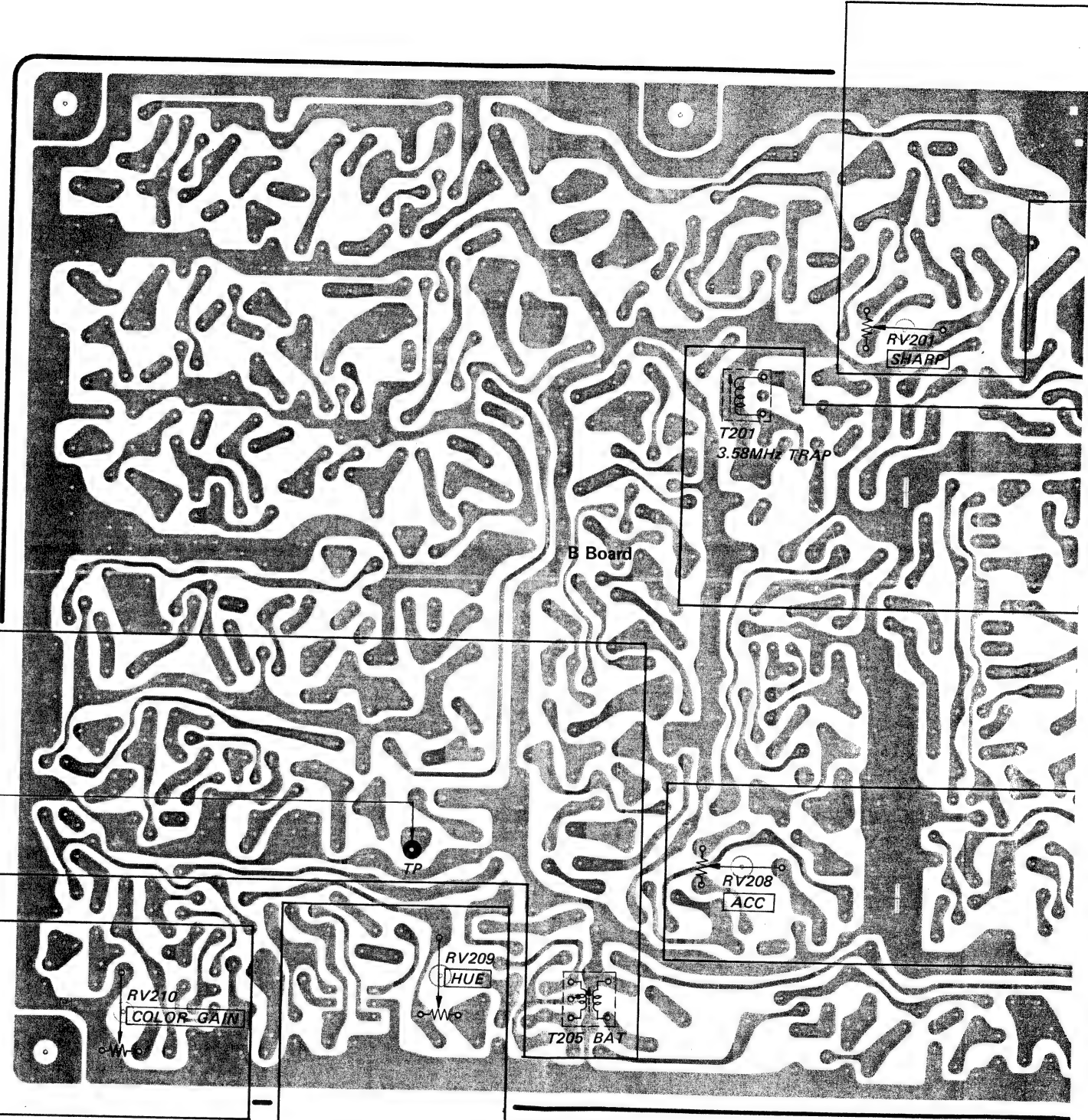
4. Adjust RV210 for suitable color intensity.

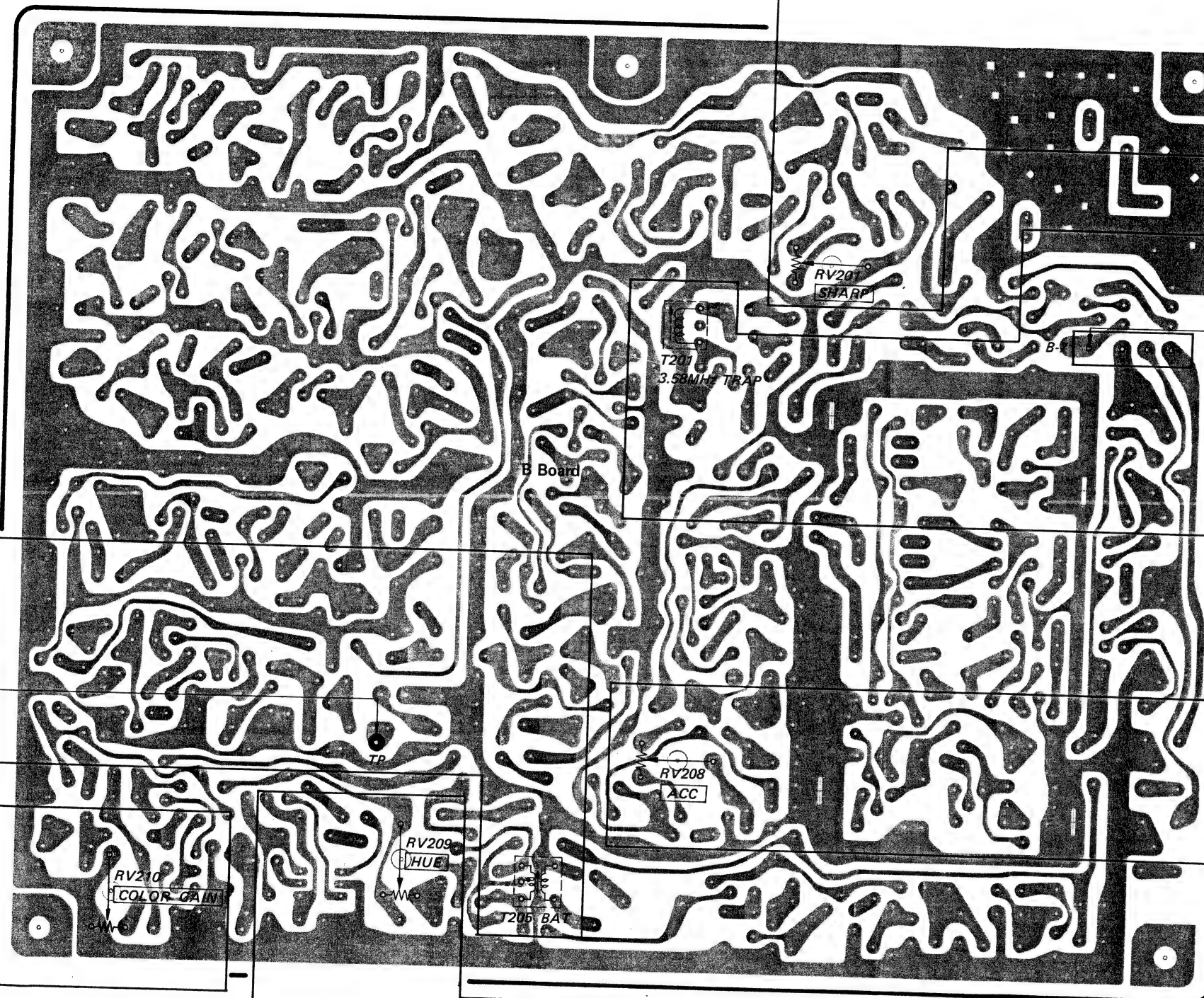
HUE

1. Feed in a strong off-air signal to VIDEO IN/OUT connector through video tuner.

2. Set HUE control to mechanical center.

3. Adjust RV209 for correct skin tones.





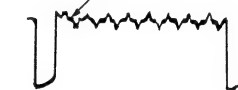
SHARP

1. Feed in an off-air signal to VIDEO IN/OUT connector through video tuner.
2. Adjust RV201 for a best picture.
(conductor side view)
Turn clockwise become sharp.
Turn counterclockwise..... become soft.

3.58MHz TRAP

1. Feed in a color-bar signal to VIDEO IN/OUT connector through video tuner from the color-bar/pattern generator.
2. Turn CONTRAST control fully clockwise.
3. Adjust T201 for minimum 3.58MHz component.

Minimize 3.58MHz carrier leakage.



ACC

1. Feed in a strong off-air signal to VIDEO IN/OUT connector through video tuner.
2. Set ACC switch to ON.
3. Set COLOR and HUE controls to mechanical center.
4. Adjust RV208 for suitable color intensity.

HUE

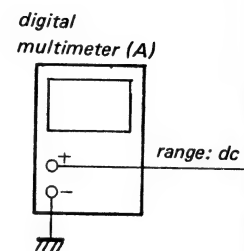
1. Feed in a strong off-air signal to VIDEO IN/OUT connector through video tuner.
2. Set HUE control to mechanical center.
3. Adjust RV209 for correct skin tones.

4-2. D BOARD ADJUSTMENTS

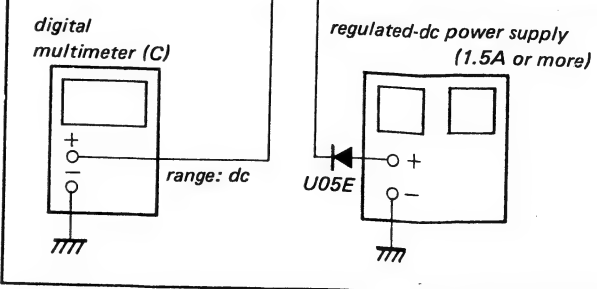
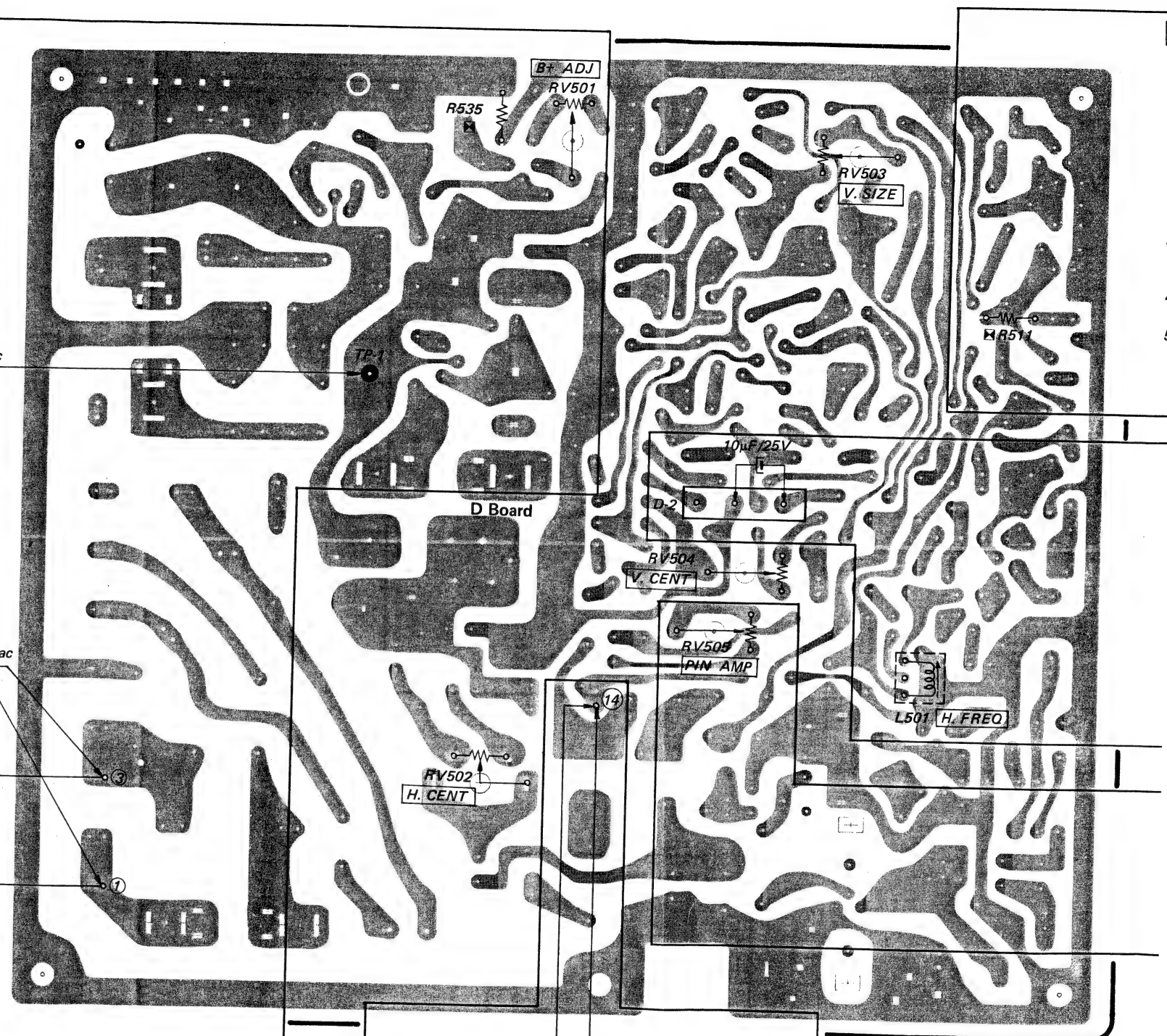
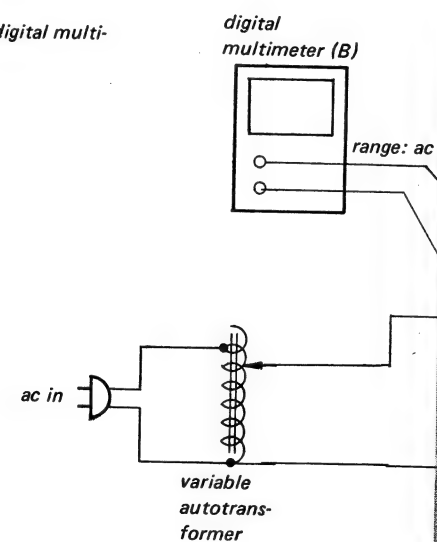
R535 ADJUSTMENT

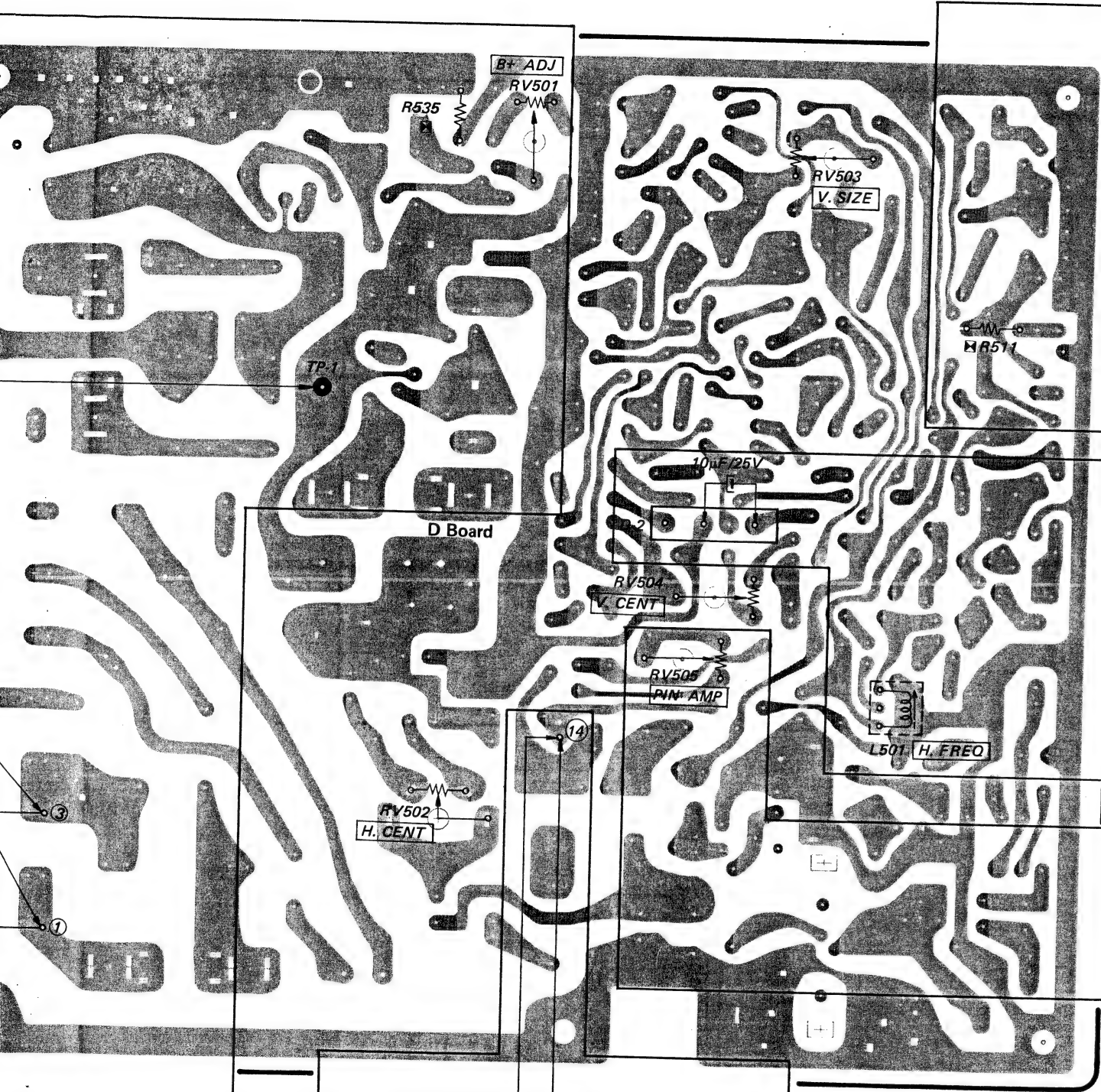
Note: When replacing the following components, make this adjustment.
D505, Q502, R505, R506, R535, RV501
(marked \blacksquare on schematic diagram)

1. Set BRIGHT and CONTRAST controls to the mechanical center.
2. Adjust the variable autotransformer for 130V ac on the digital multimeter (B).
3. Turn RV501 so that the voltage on the digital multimeter (A) is become maximum.
4. Confirm that the voltage on the digital multimeter (A) is lower than 25.6V dc. When the voltage is 25.6V dc or more, perform following steps.
5. Adjust the variable autotransformer so that the voltage on the digital multimeter (B) is 120V ac.
6. Select the value of R535 ($\frac{1}{4}W$ carbon) so that the voltage on the digital multimeter (A) is between 25.0V dc to 25.6V dc.
7. Confirm the steps 1 through 4.
8. Perform the B+ adjustment (RV501).

**B+ ADJUSTMENT**

1. Adjust the variable autotransformer for 120V ac on the digital multimeter (B).
2. Adjust RV501 for 24V dc on the digital multimeter (A).





R511 ADJUSTMENT

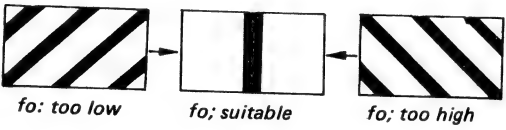
Note: When replacing the following components, make this adjustment.
D507, Q503, R510, R511, R512, R513, T902 (FBT) (marked \blacksquare on schematic diagram)

1. Feed in dots pattern from the color-bar/pattern generator.
2. Set the CONTRAST control to maximum and the BRIGHT control to minimum.
3. Connect the digital multimeter (C) and the regulated-dc power supply through the diode (U05E) to the pin 14 as shown.
4. Adjust the regulated-dc power supply for 25.2V dc on the digital multimeter (C).
5. Confirm that the horizontal oscillation is stopped and no raster is obtained. If this conformation is not obtained, perform following steps 6 through 10.

6. Adjust the regulated-dc power supply for 24.8V dc on the digital multimeter (C).
7. Select the value of R511 ($\frac{1}{4}$ W carbon) so that no raster is obtained.
8. Turn off the POWER switch and on after few minutes. Then confirm steps 9 and 10.
9. Adjust the regulated-dc power supply for 24.5V dc on the digital multimeter (C) and confirm that the set operates normally.
10. Adjust the regulated-dc power supply for 25.2V dc on the digital multimeter (C) and confirm that the horizontal oscillation is stopped and no raster is obtained.

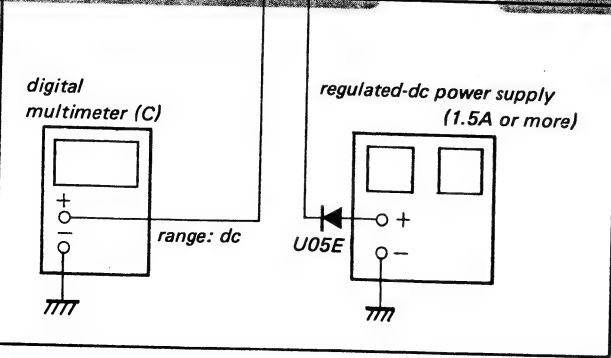
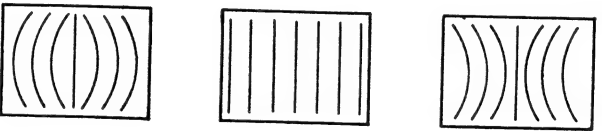
H. FREQ

1. Connect an electrolytic capacitor (10 μ F 25V) during this adjustment as shown.
2. Adjust L501 to synchronize the picture.



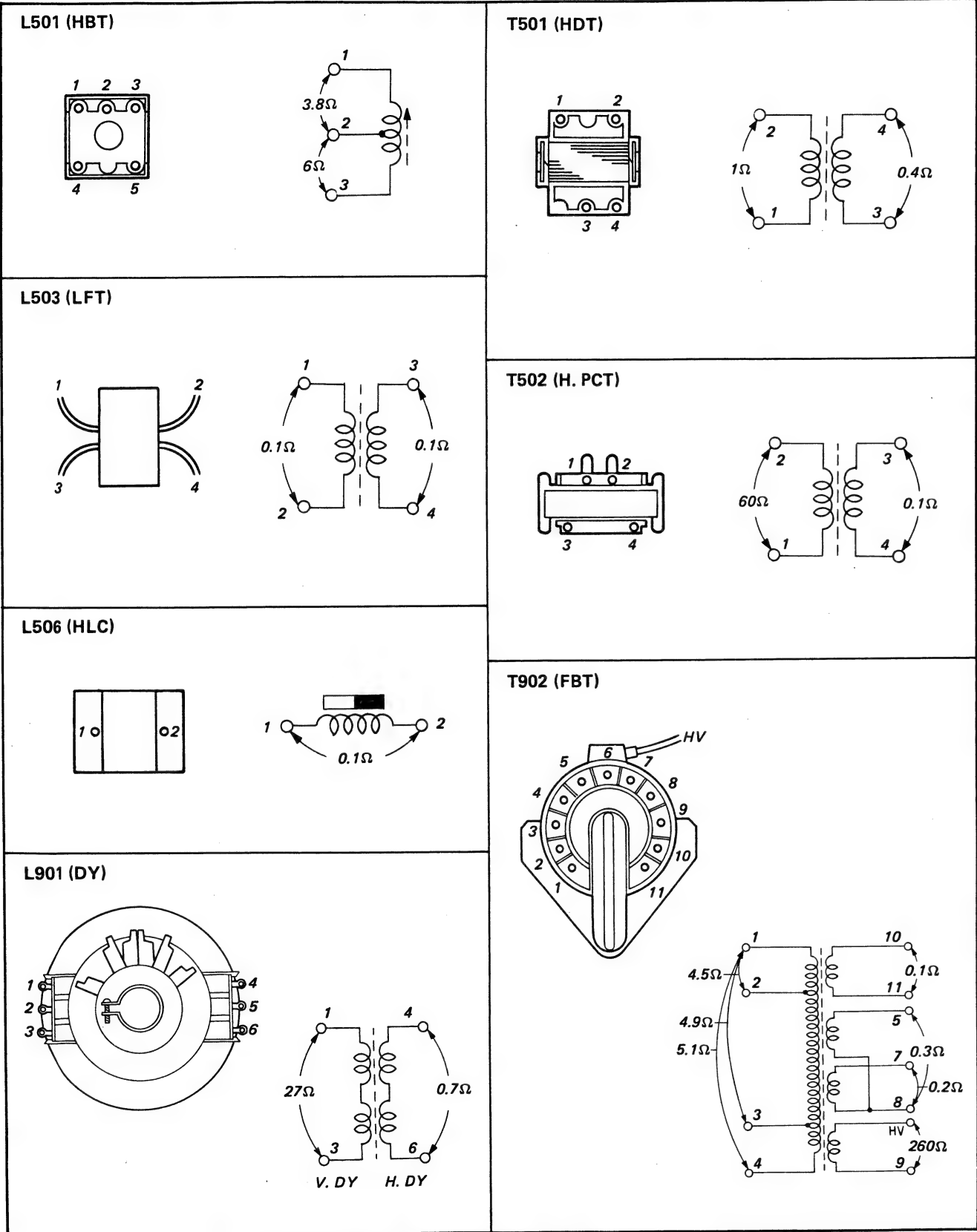
PINCUSHION AMP

Adjust RV505 to make vertical lines straight as shown below.



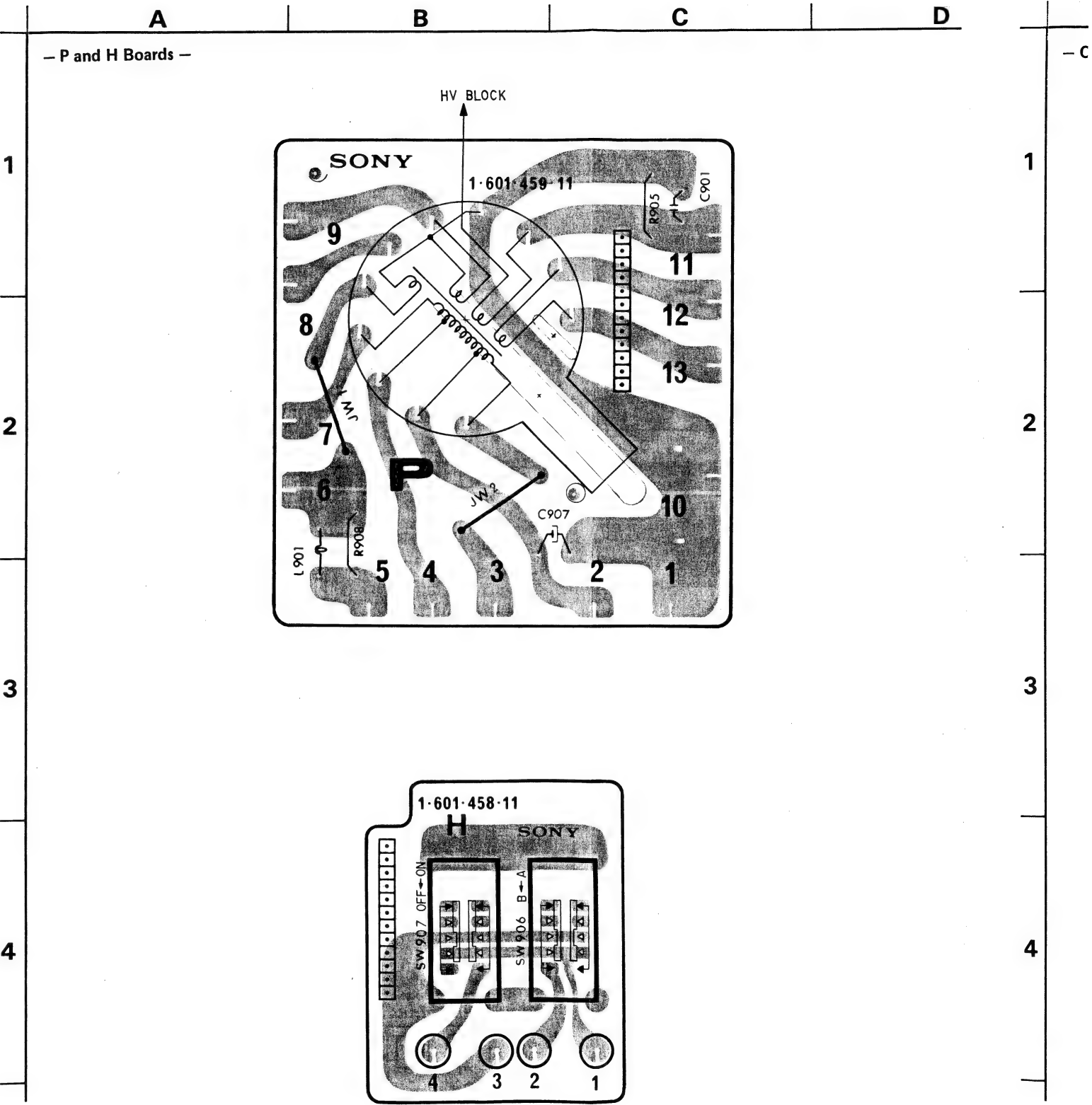
SECTION 5
DIAGRAMS

5.1. DC RESISTANCE AND WINDING DIAGRAMS OF COILS AND TRANSFORMERS



Note: DC resistance measurements shown with coils disconnected from circuit.

5.2. MOUNTING DIAGRAMS
— Conductor Side —



CUSTOMER
CONTROL

H

[FBT]

P

C

[R.G.B. OUT]

5-2. MOUNTING DIAGRAMS
— Conductor Side —

A B C D

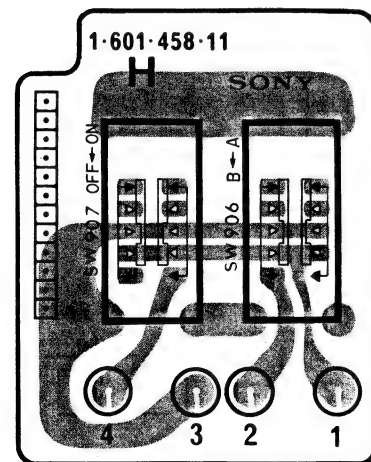
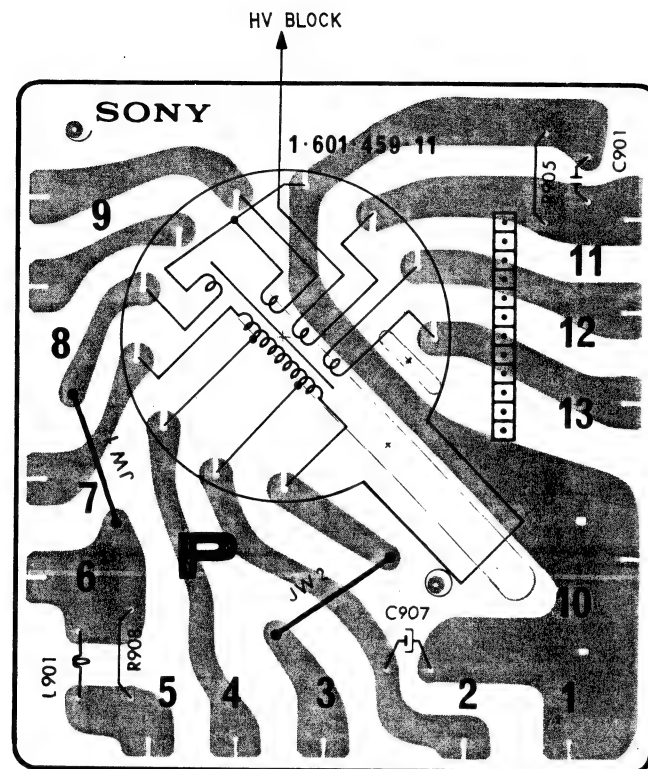
— P and H Boards —

1

2

3

4



A B C D

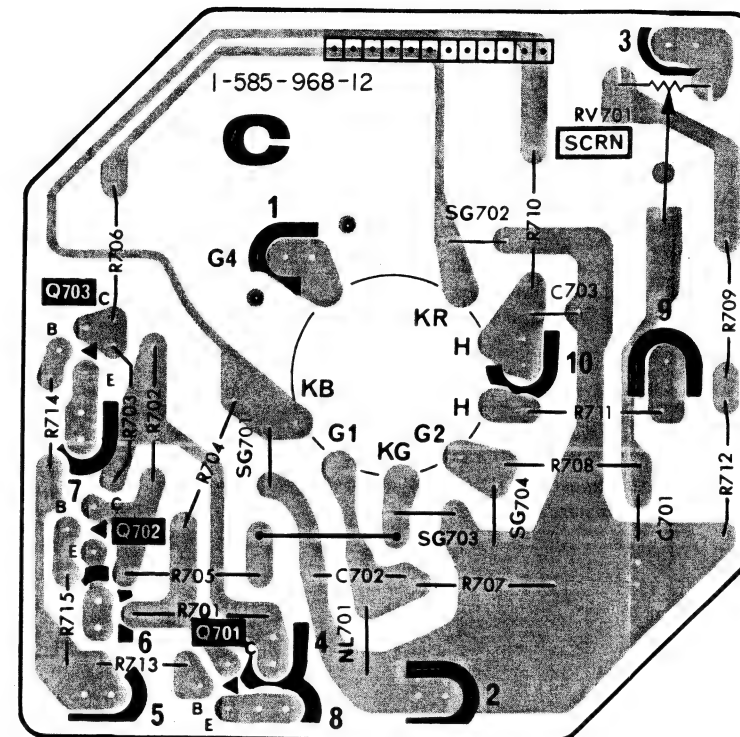
— C Board —

1

2

3

4



AC RECT, REG
H. V DEF

D

SCC-248B-A

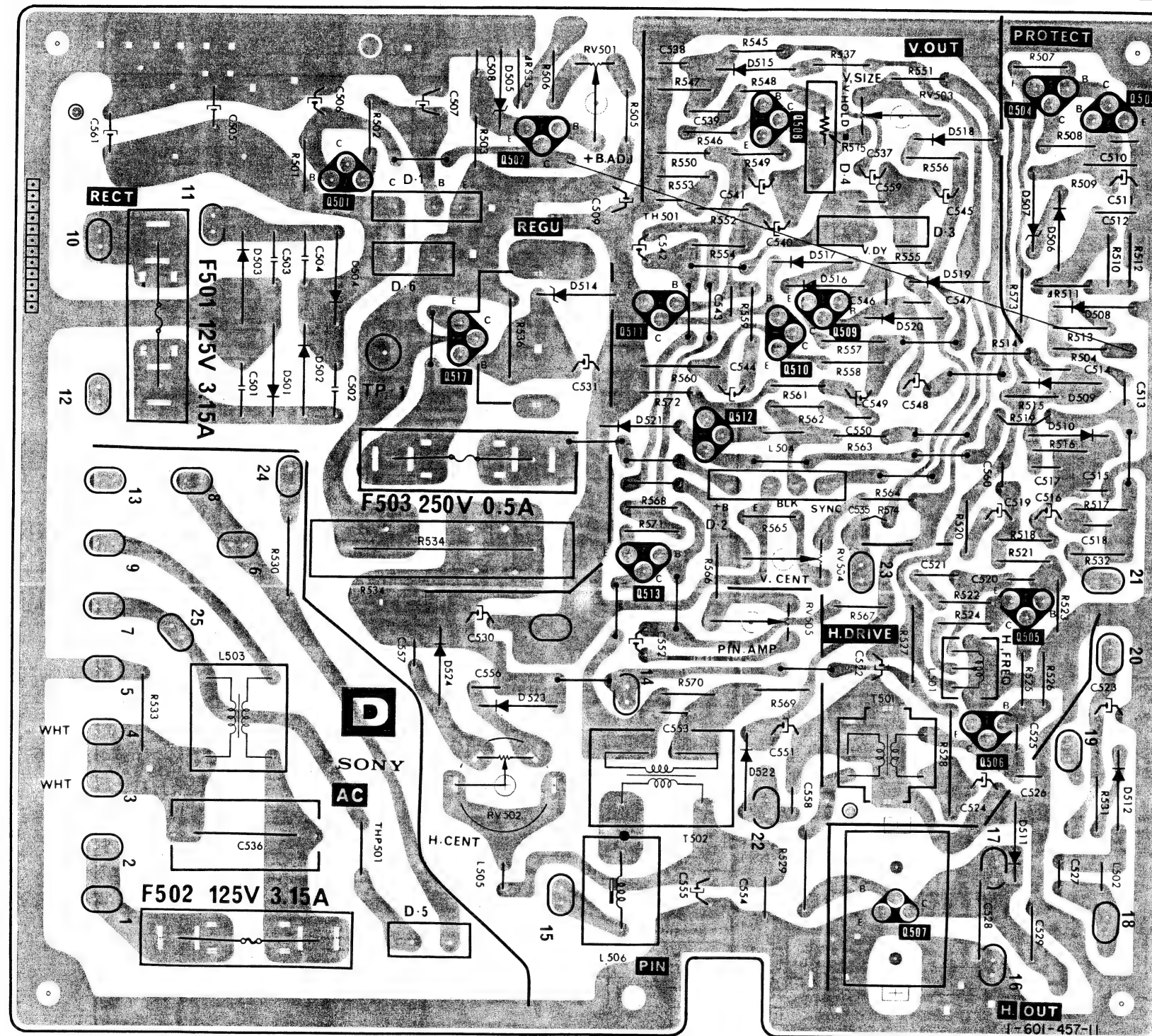
PVM-8200T

PVM-8200T

SCC-248B-A

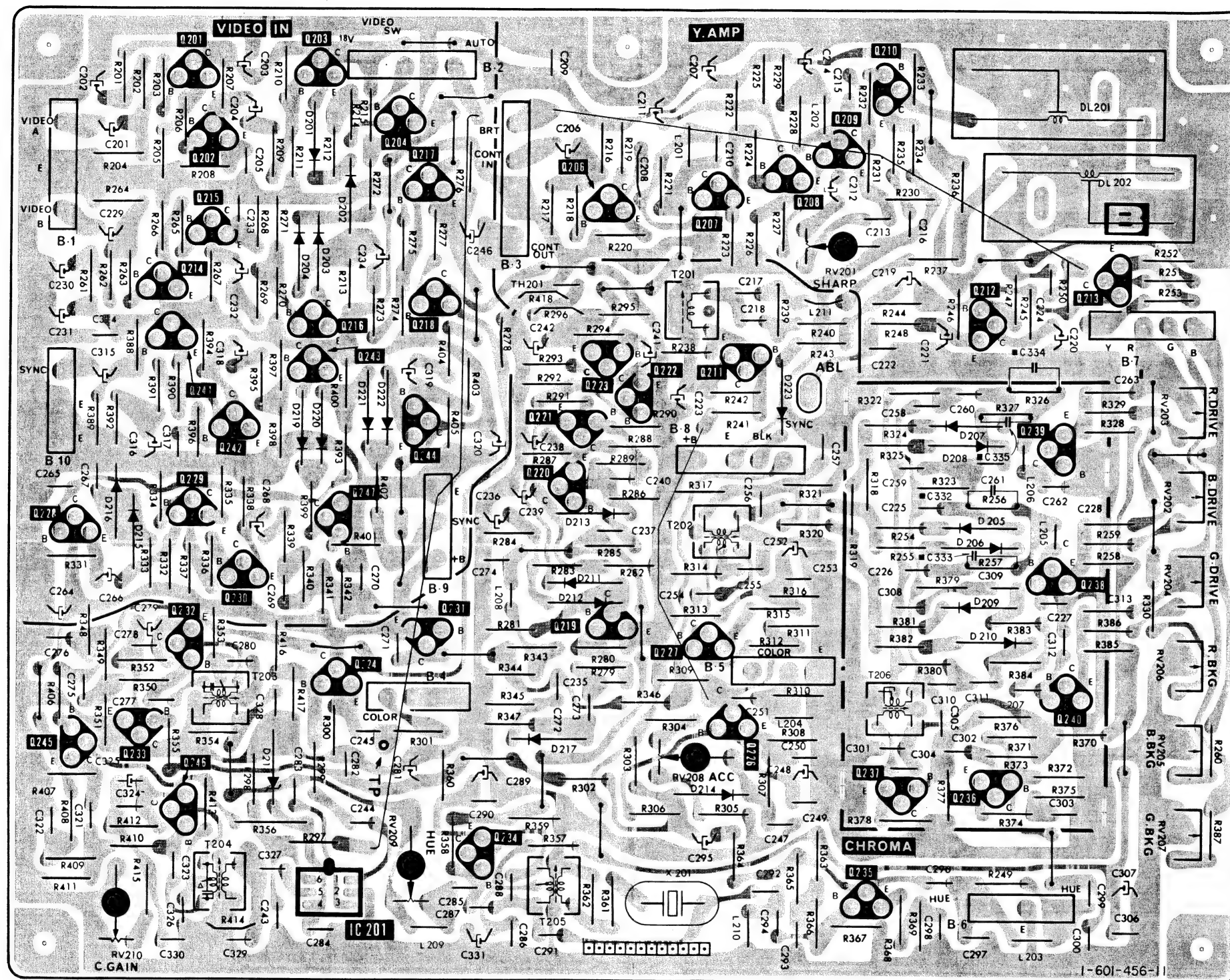
D

- D Board -




Q	501 517 502 511 512 508 510 509 507 506 504 503												Q
D	503 501 502 504 505 514 521 515 517 516 520 518 519 507 506 509 508 511 510 512												D
ADJ	RV501 RV503 RV504 RV505 RV502												ADJ

— B Board —










Q, IC	228 245	214 241 233	201 242 229 246	202 232 230	203 243 247	204 244 224	217 218	206 223 219	207 222 227	208 211	209 210	212 236	238 239 240	213	Q, IC
D	216 215	204 219	203 220	201 221	202 222	217 218	213 211	212 214	223	207 208 205 206 209 210	207 208 205 206 209 210	207 208 205 206 209 210	207 208 205 206 209 210	207 208 205 206 209 210	D
ADJ	RV210	RV209	RV208	RV201	RV203 RV204 RV205	RV202 RV206 RV207									ADJ




5-3. SCHEMATIC DIAGRAM



Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.

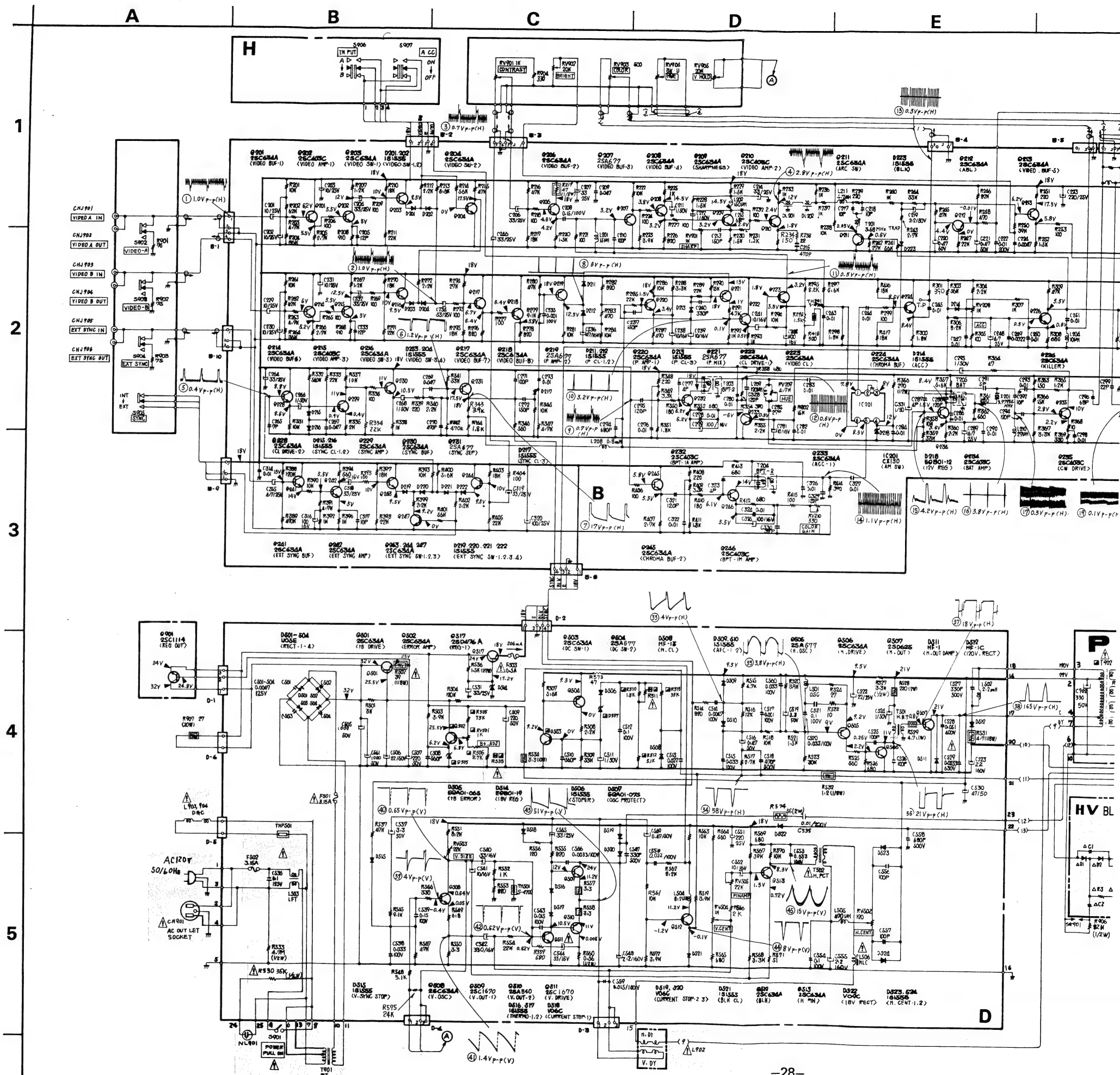
Note: Les composants identifiés par une trame et une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

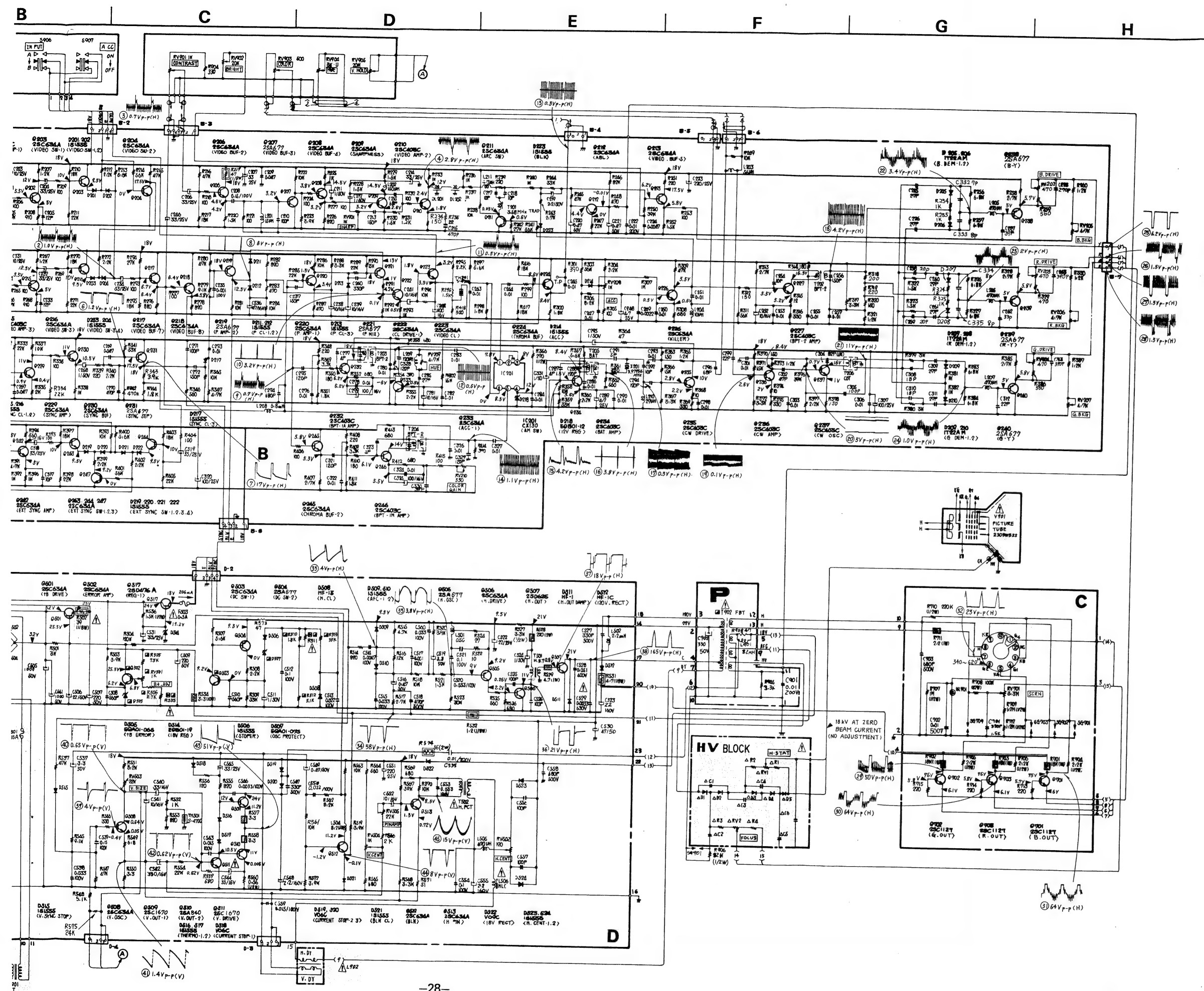
Note:

- All capacitors are in μF unless otherwise noted. μF 50WV or less are not indicated except for electrolytics.
 - All resistors are in ohms, $\frac{1}{4}\text{W}$ unless otherwise noted.
k Ω : 1000 Ω , M Ω : 1000k Ω
 -  : nonflammable resistor.
 - \triangle : internal component.
 -  : panel designation.
 - The components identified by  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by  , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by  and repeat the adjustment until the specified value is achieved. (Refer to  R511 adjustment on page 17 and  R535 adjustment on page 15.)
- When replacing the part in below table, be sure to perform the related adjustment.

Part replaced ()	Adjustment
D507, Q503, R510, R511, R512, R513, T902 (FBT)	 R511 adjustment
D505, Q502, R505, R506, R535, RV501	 R535 adjustment

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Readings are taken with a color-bar signal input.
INPUT switch: A position
ACC switch: ON position
SYNC switch: INT position
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a 20,000-ohm-per-volt VOM.
- Voltage variations may be noted due to normal production tolerances.
-  : adjustable without removing cabinet.
-  : adjustment for repair.





SECTION 6 EXPLODED VIEWS

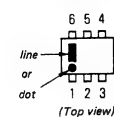
Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

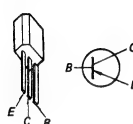
Note:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked "●" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- As to the part numbered with E-, refer to the electrical parts list.
- All screws are Phillips (cross recess) type unless otherwise noted.
(-) = slotted head
 - : TA, BV3 x 8
 - : TA, BV3 x 12
 - ▲ : TA, BV4 x 12
- The construction parts of an assembled part are indicated with a collation number in the remark column.

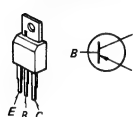
CX130



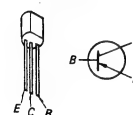
2SA677
2SA1027R



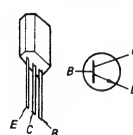
2SA835



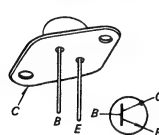
2SA840



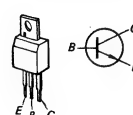
2SC403C
2SC634A



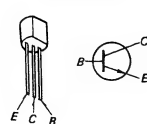
2SC1114



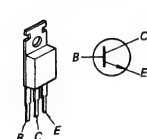
2SC1127
2SC1962
2SC2278



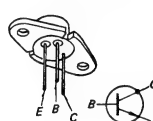
2SC1364
2SC1670



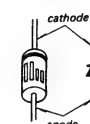
2SD476A



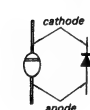
2SD625



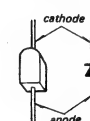
EQA01-06S
EQA01-07S
EQB01-06
EQB01-07
EQB01-12
EQB01-12Z
EQB01-19
EQB01-19Z



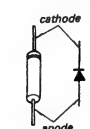
GH3F
U05E
U05G
V06C
V09C
V09G



HF1
HF1C
HF1Z



1S1555
1T22AM



(1)

N

N

1

2

3

4

No.

1

2

3

4

5

6

7


8


9

10

11

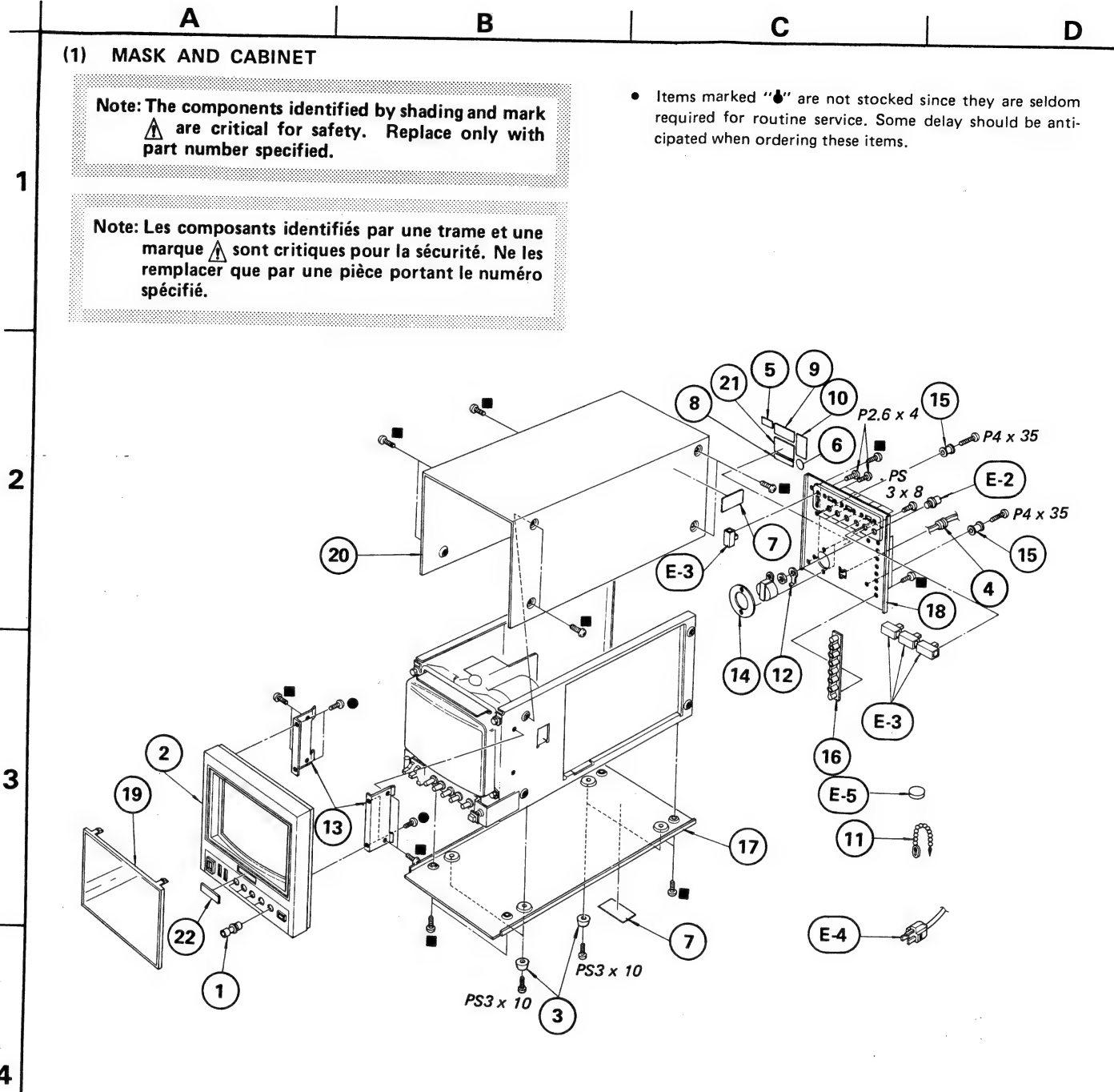
SECTION 6
EXPLODED VIEWS


Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.


Note: Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Note:








- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked "E" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- As to the part numbered with E-, refer to the electrical parts list.
- All screws are Phillips (cross recess) type unless otherwise noted.
(-) = slotted head
 - : TA, BV3 x 8
 - : TA, BV3 x 12
 - ▲ : TA, BV4 x 12
- The construction parts of an assembled part are indicated with a collation number in the remark column.



Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.

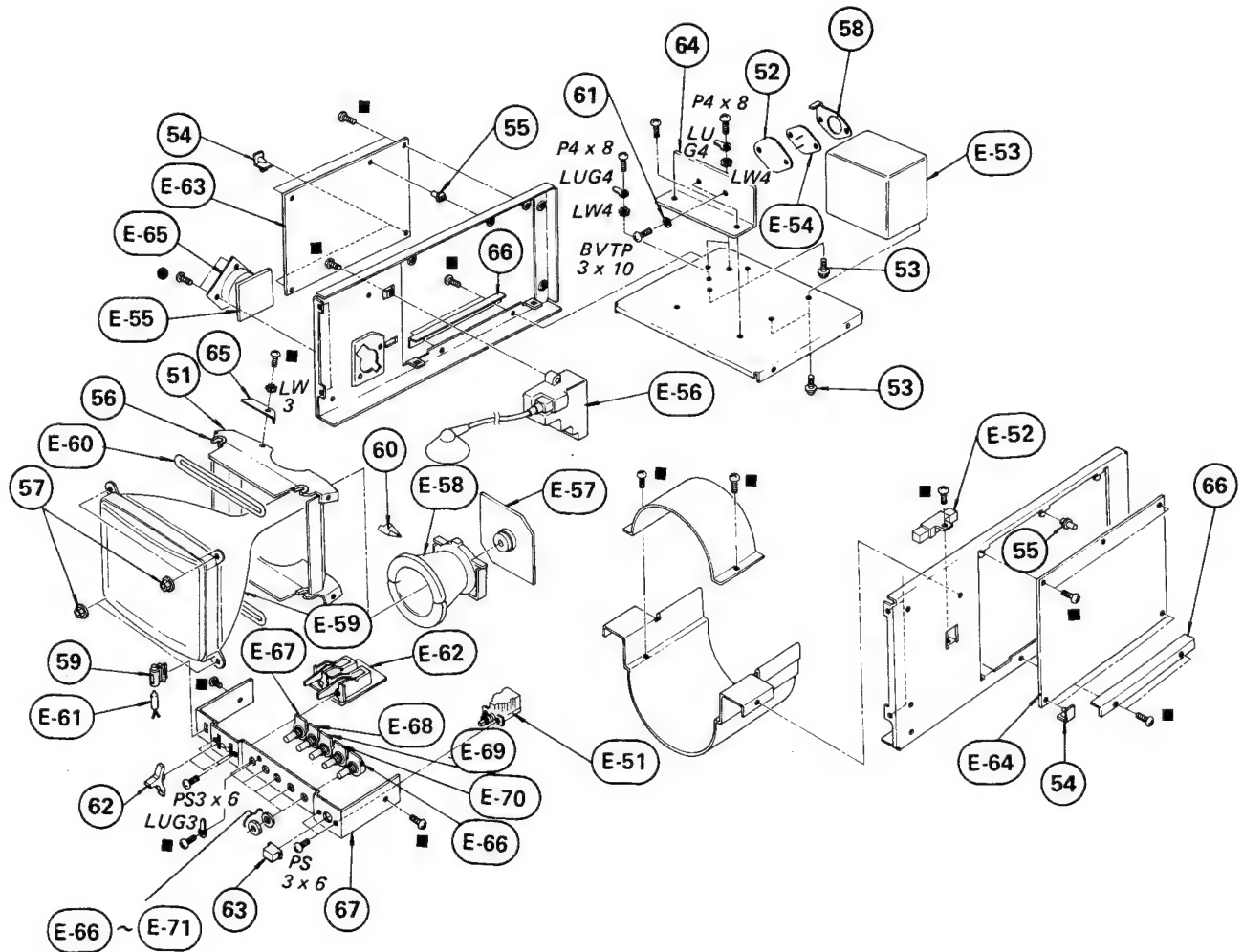
Note: Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Items marked "E" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
1	X-4316-209-0	Knob Ass'y, control		12	4-325-529-00	Terminal, connector	
2	X-4340-202-0	Mask Ass'y, front		13	 4-340-202-00	Bracket, front mask	
3	X-4861-312-0	Foot Ass'y		14	4-340-205-00	Nut, plate	
4	 2-045-063-00	Stopper, cord		15	4-340-206-00	Winding, cord	
5	3-701-829-01	Label, X-RAY		16	 4-340-214-00	Insulator, control	
6	3-701-915-01	Label, UL		17	 4-340-219-00	Cover, lower	
7	3-703-079-21	Label, caution		18	 4-340-220-00	Cover, rear	
8	3-703-209-00	Label, commercial use		19	4-340-221-00	Filter	
9	3-703-228-00	Label, caution		20	 4-340-226-00	Cover, upper	
10	4-010-023-04	Label, X-RAY		21	 4-340-245-00	Label, model number	
11	4-308-870-00	Clip, lead wire		22	4-836-828-11	Emblem, SONY	


(2) CHASSIS


- Items marked "●" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.




<u>No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
51	● X-4325-007-0	Picture Tube shield Ass'y		60	4-309-369-00	Spacer, deflection yoke	
52	3-701-353-00	Spacer, mica		61	4-313-734-00	Bushing, transistor	
53	3-701-810-21	Screw, terminal		62	4-335-954-02	Knob, lever switch	
54	● 3-701-832-00	Hinge, circuit board		63	4-335-962-00	Pushbutton	
55	● 4-303-473-00	Support, circuit board		64	● 4-340-201-00	Heat Sink, REG	
56	4-304-483-00	Bushing, degaussing coil		65	● 4-340-209-00	Insulator (A)	
57	4-304-749-00	Nut, flange		66	● 4-340-210-00	Insulator (B)	
58	● 4-307-456-00	Holder, transistor		67	● 4-340-212-00	Bracket, control	
59	4-308-211-00	Holder, neon lamp					

SECTION 7 ELECTRICAL PARTS LIST

Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- \Rightarrow : Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.
- \ast : selected to yield optimum performance.
- Items marked "⚡" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The components identified by  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

CAPACITORS

- All capacitors are in μF and ceramic unless otherwise noted. 50WV or less are not indicated except for electrolytics. p : μF , elect : electrolytic

RESISTORS

- All resistors are in ohms. Common $\frac{1}{4}\text{W}$ carbon resistors are omitted. Refer to the list on page 69 for their part numbers.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
k Ω : 1000 Ω , M Ω : 1000k Ω

COILS

- All coils are microinductors unless otherwise noted.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
B BOARD							
	⚡ A-1295-331-A	B Board, complete	E-64	C249	1-101-002-00	0.0022	
CAPACITORS				C250, 251	1-102-129-00	0.01	
C201-203	1-123-329-00	10 25V elect		C252	1-123-316-00	10 16V elect	
C204	1-123-331-00	33 25V elect		C253	1-102-129-00	0.01	
C205	1-102-949-00	12p		C254	1-102-947-00	10p	
C206, 207	1-123-331-00	33 25V elect		C255	1-102-129-00	0.01	
C208	1-106-224-00	0.15 100V mylar		C256	1-102-888-00	150p	
C209	1-101-006-00	0.047		C257	1-102-129-00	0.01	
C210	1-102-973-00	100p		C258, 259	1-102-958-00	20p	
C211, 212	1-123-352-00	1 50V elect		C260, 261	1-102-961-00	27p	
C213	1-101-361-00	150p		C262	1-102-963-00	33p	
C214	1-123-331-00	33 25V elect		C263	1-161-318-00	390p	
C215	1-101-888-00	68p		C264	1-123-331-00	33 25V elect	
C216	1-102-824-00	470p		C265	1-102-944-00	7p	
C217, 218	1-102-858-00	10p		C266	1-123-352-00	1 50V elect	
C219	1-123-353-00	2.2 50V elect		C267	1-101-006-00	0.047	
C220, 221	1-123-351-00	0.47 50V elect		C268	1-123-352-00	1 50V elect	
C222	1-108-421-00	0.01 200V mylar		C269	1-101-006-00	0.047	
C223	1-123-334-00	220 25V elect		C270	1-102-824-00	470p	
C224	1-102-125-00	0.0047		C271	1-102-973-00	100p	
C225, 226	1-102-961-00	27p		C272	1-101-361-00	150p	
C227	1-102-965-00	39p		C273	1-102-129-00	0.01	
C228	1-161-316-00	270p		C274	1-102-116-00	680p	
C229-231	1-123-329-00	10 25V elect		C275	1-102-816-00	120p	
C232	1-123-331-00	33 25V elect		C276	1-102-129-00	0.01	
C233	1-102-949-00	12p		C277	1-102-937-00	4p	
C234	1-123-331-00	33 25V elect		C278	1-102-129-00	0.01	
C235	1-108-365-00	0.001 100V mylar		C279	1-123-320-00	100 16V elect	
C236	1-123-319-00	47 16V elect		C280	1-102-129-00	0.01	
C237	1-101-361-00	150p		C281	1-123-316-00	10 16V elect	
C238, 239	1-123-316-00	10 16V elect		C282-284	1-102-129-00	0.01	
C240	1-102-820-00	330p		C285	1-102-961-00	27p	
C241	1-123-316-00	10 16V elect		C286	1-102-129-00	0.01	
C242	1-123-320-00	100 16V elect		C287	1-102-937-00	4p	
C243-245	1-102-129-00	0.01		C288	1-102-765-00	120p	
C246	1-123-331-00	33 25V elect		C289	1-123-328-00	4.7 25V elect	
C247	1-102-129-00	0.01		C290	1-102-129-00	0.01	
C248	1-123-328-00	4.7 25V elect		C291	1-102-942-00	5p	
				C292	1-102-858-00	10p	
				C293	1-102-129-00	0.01	
				C294	1-102-816-00	120p	

• Items marked "⚡" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
C295	1-123-352-00	1 50V elect				IC	
C296	1-101-888-00	68p		IC201	8-751-300-00	CX130	
C298	1-102-129-00	0.01				COILS	
C299	1-102-959-00	22p					
C301	1-102-004-00	0.01					
C302	1-101-880-00	47p		L201	1-407-159-XX	15μH	
C303	1-101-004-00	0.01		L202	1-407-171-XX	150μH	
C304	1-102-762-00	82p		L203	1-407-166-XX	56μH	
C305	1-102-973-00	100p		L204	1-407-157-XX	10μH	
C306	1-102-129-00	0.01		L205-207	1-407-661-XX	470μH	
C307	1-123-333-00	100 25V elect		L208	1-407-204-XX	6.8mH	
C308	1-102-953-00	18p		L209	1-407-706-00	120μH	
C309	1-102-961-00	27p		L210	1-407-162-XX	27μH	
C310	1-102-953-00	18p		L211	1-407-186-XX	4.7μH	
C311	1-102-961-00	27p				TRANSISTORS	
C312	1-102-959-00	22p		⇒Q201	8-729-663-47	2SC1364	
C313	1-161-318-00	390p		Q202	8-724-375-01	2SC403C	
C314	1-102-129-00	0.01		⇒Q203, 204	8-729-663-47	2SC1364	
C315	1-123-328-00	4.7 25V elect		⇒Q206	8-729-663-47	2SC1364	
C316	1-123-320-00	100 16V elect		⇒Q207	8-729-612-77	2SA1027R	
C317	1-102-947-00	10p		⇒Q208, 209	8-729-663-47	2SC1364	
C318, 319	1-123-331-00	33 25V elect		Q210	8-724-375-01	2SC403C	
C320	1-123-333-00	100 25V elect		⇒Q211-214	8-729-663-47	2SC1364	
C321	1-102-816-00	120p		Q215	8-724-375-01	2SC403C	
C322	1-102-129-00	0.01		⇒Q216-218	8-729-663-47	2SC1364	
C323	1-102-937-00	4p		⇒Q219	8-729-612-77	2SA1027R	
C324	1-102-129-00	0.01		⇒Q220	8-729-633-47	2SC1364	
C325	1-123-320-00	100 16V elect		⇒Q221	8-729-612-77	2SA1027R	
C326, 327	1-102-129-00	0.01		⇒Q222-224	8-729-663-47	2SC1364	
C328, 329	1-102-679-00	120p		⇒Q226	8-729-663-47	2SC1364	
C330	1-102-965-00	39p		Q227	8-724-375-01	2SC403C	
C331	1-123-352-00	1 50V elect		⇒Q228-230	8-729-663-47	2SC1364	
C332	1-102-809-00	7p		⇒Q231	8-729-612-77	2SA1027R	
C333-335	1-102-945-00	8p		Q232	8-724-375-01	2SC403C	
		DIODES		⇒Q233	8-729-663-47	2SC1364	
D201-204	8-719-815-55	1S1555		Q234-237	8-724-375-01	2SC403C	
D205-210	8-719-422-21	1T22AM		⇒Q238-240	8-729-612-77	2SA1027R	
D211-217	8-719-815-55	1S1555		⇒Q241-245	8-729-663-47	2SC1364	
⇒D218	8-719-930-12	EQB01-12Z		Q246	8-724-375-01	2SC403C	
D219-223	8-719-815-55	1S1555					
DL201, 202	1-415-100-00	Delay Line					

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
⇒Q247	8-729-663-47	2SC1364	
RESISTORS			
R219	1-211-933-00	47 1/8W carbon (nonflammable)	
R356	1-244-859-00	270 1/2W carbon	
RV201	1-224-642-XX	1k, adjustable; SHARP	
RV202	1-224-965-00	470, adjustable; B. DRIVE	
RV203	1-224-965-00	470, adjustable; R. DRIVE	
RV204	1-224-965-00	470, adjustable; G. DRIVE	
RV205	1-226-099-00	4.7k, adjustable; B. BKG	
RV206	1-226-099-00	4.7k, adjustable; R. BKG	
RV207	1-226-099-00	4.7k, adjustable; G. BKG	
RV208	1-224-642-XX	1k, adjustable; ACC	
RV209	1-224-644-XX	4.7k, adjustable; HUE	
RV210	1-224-640-XX	330, adjustable; COLOR GAIN	

TRANSFORMERS

T201	1-409-193-00	3.58MHz Trap
T202-204	1-425-794-00	BPT-2
T205	1-405-372-00	BAT
T206	1-425-618-00	COT
TH201	1-800-070-XX	TH-4700
X201	1-527-154-00	Crystal

C BOARD

- ♣ A-1330-123-A C Board, complete
- ♣ 1-585-968-00 C Board

E-57

CAPACITORS

C701	1-102-327-00	330p 1.5kV
C702	1-102-050-00	0.01 500V
C703	1-102-002-00	680p 500V
NL701	1-519-108-XX	Neon Ass'y, lamp

TRANSISTORS

⇒Q701-703 8-729-322-78 2SC2278

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
RESISTORS			
R701-703	1-213-158-00	18k 1W metal oxide (nonflammable)	
R704-706	1-244-881-00	2.2k 1/2W composition	
R707	1-244-945-00	1M 1/2W composition	
R708	1-202-621-00	100k 1/2W composition	
R709	1-202-720-00	1.2M 1/2W composition	
R710	1-202-629-00	220k 1/2W composition	
R711	1-212-364-00	2.2 1W metal oxide (nonflammable)	
R712	1-202-720-00	1.2M 1/2W composition	
RV701	1-226-053-00	3.3M, adjustable; SCR N	
SG701-704	1-519-063-XX	Spark Gap	

D BOARD

- ♣ A-1345-259-A D Board, complete

E-63

CAPACITORS

C501-504	1-102-189-00	0.0047 125V	
C505	1-123-364-00	1000 50V elect	
C506	1-123-357-00	22 50V elect	
C507	1-123-361-00	220 50V elect	
C508	1-102-115-00	560p	
C509	1-123-361-00	220 50V elect	
C510	1-102-115-00	560p	
C511	1-123-352-00	1 50V elect	
C512	1-108-389-00	0.1 100V mylar	
C513	1-108-381-00	0.022 100V mylar	
C514	1-108-373-00	0.0047 100V mylar	
C515	1-108-383-00	0.033 100V mylar	
C516	1-123-351-00	0.47 50V elect	
C517	1-108-365-00	0.001 100V mylar	
C518	1-102-232-00	470p 500V	
C519	1-123-354-00	3.3 50V elect	
C520	1-130-117-00	0.033 100V polypropylene	
C521	1-108-389-00	0.1 100V mylar	
C522	1-123-330-00	22 25V elect	

- Items marked "♣" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Ref. No.	Part No.	Description	Remark
C523	1-123-253-00	22 160V elect	
C524	1-123-352-00	1 50V elect	
C525, 526	1-102-106-00	100p	
C527	1-102-030-00	330p 500V	
C528	⚠ 1-130-118-00	0.051 400V film	
C529	⚠ 1-129-708-00	3300p 630V polypropylene	
C530	1-123-359-00	47 50V elect	
C531	1-123-331-00	33 25V elect	
C535	1-108-420-00	0.01 200V mylar	
C536	⚠ 1-130-060-00	0.1 125V polypropylene	
C537	1-123-354-00	3.3 50V elect	
C538	1-108-383-00	0.033 100V mylar	
C539	1-106-224-00	0.15 100V mylar	
C540	1-123-318-00	33 16V elect	
C541	1-131-371-00	10 16V tantalum	
C542	1-123-322-00	330 16V elect	
C543	1-108-379-00	0.015 100V mylar	
C544	1-123-318-00	33 16V elect	
C545	1-123-331-00	33 25V elect	
C546	1-108-371-00	0.0033 100V mylar	
C547	1-102-030-00	330p 500V	
C548	1-123-267-00	2.2 160V elect	
C549	1-123-351-00	0.47 50V elect	
C550	1-108-381-00	0.022 100V mylar	
C551	1-123-334-00	220 25V elect	
C552	1-123-316-00	10 16V elect	
C553	1-108-383-00	0.033 100V mylar	
C554	1-108-389-00	0.1 100V mylar	
C555	1-123-267-00	2.2 160V elect	
C556, 557	1-102-106-00	100p	
C558	1-102-002-00	680p 500V	
C559	1-108-379-00	0.015 100V mylar	
C560	1-108-383-00	0.033 100V mylar	
C561	1-123-364-00	1000 50V elect	

DIODES

⇒D501-504	8-719-911-55	U05G
⇒D505	8-719-931-06	EQB01-06
D506	8-719-815-55	1S1555
⇒D507	8-719-931-07	EQB01-07
⇒D508	8-719-305-15	GH3F

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
D509, 510	8-719-815-55	1S1555	
⇒D511	8-719-305-15	GH3F	
D512	8-719-320-31	HF1C	
⇒D514	8-719-930-19	EQB01-19Z	
D515-517	8-719-815-55	1S1555	
⇒D518-520	8-719-900-95	V09G	
D521	8-719-815-55	1S1555	
⇒D522	8-719-900-95	V09G	
D523, 524	8-719-815-55	1S1555	
F501, 502	⚠ 1-532-403-XX	Fuse, 3.15A	
F503	⚠ 1-532-262-XX	Fuse, 0.5A	

COILS

L501	1-405-760-00	OSC
L502	1-407-198-XX	2.2mH
L503	⚠ 1-421-302-XX	Line Filter, LFT
L504	1-407-189-XX	8.2μH
L505	1-407-191-XX	470μH
L506	⚠ 1-459-196-00	Horizontal Linearity, HLC

TRANSISTORS

⇒Q501-503	8-729-663-47	2SC1364
⇒Q504, 505	8-729-612-77	2SA1027R
⇒Q506	8-729-663-47	2SC1364
Q507	8-727-580-26	2SD625
⇒Q508	8-729-663-47	2SC1364
⇒Q509	8-765-170-01	2SC1962
⇒Q510	8-762-020-00	2SA835
Q511	⚠ 8-762-112-00	2SC1670-12
	⚠ 8-762-113-00	2SC1670-13
⇒Q512, 513	8-729-663-47	2SC1364
⇒Q517	8-729-307-62	2SD476A

RESISTORS

R502	⚠ 1-246-986-00	39 1/8W carbon (nonflammable)
⊗ R511	⚠ ————	1/4W carbon
R527	1-244-885-00	3.3k 1/2W carbon
R528	1-206-648-00	220 2W metal oxide (nonflammable)
R529	1-212-368-00	4.7 1W metal oxide (nonflammable)

Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Items marked "▲" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Ref. No.	Part No.	Description	Remark
R530	▲ 1-244-910-00	36k ½W carbon	
R531	1-246-981-00	4.7 1/8W carbon (nonflammable)	
R532	1-246-979-00	1.2 1/8W carbon (nonflammable)	
R533	▲ 1-202-661-00	4.7M ½W composition	
R534	1-205-532-00	3.3 10W cement-coated (nonflammable)	

■ R535	▲	¾W carbon	
R536	1-244-877-00	1.5k ½W carbon	
R560	1-207-460-00	0.56 ½W wirewound	
R574	1-206-481-00	56 2W metal oxide (nonflammable)	

RV501	1-224-642-XX	1k, adjustable; B+ ADJ	
RV502	1-223-102-00	120, adjustable; H. CENT	
RV503	1-224-646-XX	22k, adjustable; V. SIZE	
RV504	1-224-642-XX	1k, adjustable; V. CENT	
RV505	1-224-646-XX	22k, adjustable; PIN AMP	

TRANSFORMERS

T501	1-437-021-00	Horizontal Drive, HDT	
T502	▲ 1-421-268-00	H. PCT	
TH501	1-800-070-XX	Thermistor, TH-4700	
THP501	▲ 1-800-065-XX	Thermistor (positive), PTC-1	

H BOARD

	1-601-458-00	H Board	E-62
S906	1-552-897-00	Switch, lever; INPUT	
S907	1-552-897-00	Switch, lever; ACC	

P BOARD

1-601-459-00	P Board	E-55
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CAPACITORS

C901	1-108-421-00	0.01 200V mylar	
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Ref. No.	Part No.	Description	Remark
C907	1-123-362-00	330 50V elect	
		COIL	
L901	1-407-168-XX	82μH	

MISCELLANEOUS

CN901	▲ 1-509-841-00	AC Outlet (3P)	E-1
CNJ901	1-561-167-00	Connector, VIDEO A IN	E-2
CNJ902	1-561-167-00	Connector, VIDEO A OUT	E-2
CNJ903	1-561-167-00	Connector, VIDEO B IN	E-2
CNJ904	1-561-167-00	Connector, VIDEO B OUT	E-2
CNJ905	1-561-167-00	Connector, EXT SYNC IN	E-2
CNJ906	1-561-167-00	Connector, EXT SYNC OUT	E-2
L902	▲ 1-451-145-00	Deflection Yoke, DY	E-58
L903,904	▲ 1-425-856-00	Coil, degaussing; DGC	E-60
NL901	▲ 1-519-108-XX	Neon Ass'y, lamp	E-61

Q901	8-729-311-42	2SC1114	E-54
R906	1-202-837-00	82k ½W composition	
R907	1-205-603-00	27 20W wirewound (nonflammable)	E-52

RV901	1-222-535-XX	1k, variable; CONT	E-66
RV902	1-224-147-XX	20k, variable; BRT	E-67
RV903	1-226-687-00	500, variable; COLOR	E-69
RV904	1-222-524-00	3k-U, variable; HUE	E-68
RV905	1-224-147-XX	20k, variable; V. HOLD	E-67
S901	▲ 1-552-895-00	Switch, pushbutton; POWER	E-51
S902	1-516-779-XX	Switch, slide; VIDEO A	E-3

S903	1-516-779-XX	Switch, slide; VIDEO B	E-3
S904	1-516-779-XX	Switch, slide; EXT SYNC	E-3
S905	1-516-779-XX	Switch, slide; SYNC	E-3
SG901	1-519-063-XX	Spark Gap	
T901	▲ 1-446-551-00	Transformer, power; PT	E-53

T902	▲ 1-439-212-00	Transformer, flyback; FBT	E-65
V901	▲ 8-737-701-05	Picture Tube, 230BW22	E-59

1-452-032-00	Magnet, disk; 10mm dia	
1-452-126-11	Magnet, BMC	E-5
▲ 1-453-050-31	HV Block	E-56
1-517-072-00	Lamp Holder	
▲ 1-534-517-23	Cord, power	E-4

Note: Les composants identifiés par une trame et une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Note: The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

ACCESSORIES AND PACKING MATERIALS

<u>Part No.</u>	<u>Description</u>
3-701-631-00	Bag, polyethylene
3-701-730-00	Bag, polyethylene; IBM card
4-340-203-00	Plate, number
4-340-231-00	Bag, protection
4-340-246-00	Carton
4-340-247-00	Cushion, front
4-340-248-00	Cushion, rear
4-491-213-21	Instruction
4-495-924-21	Manual, instruction
7-822-282-01	Card, IBM (white)
7-822-282-02	Card, IBM (pink)
7-822-282-03	Card, IBM (green)

SONY TRINITRON® COLOR VIDEO MONITOR PVM-8200T

US and Canadian Model

Chassis No. SCC-248B-A

ATTENTION AU COMPOSANT AYANT RAPPORT
À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UN TRAMÉ ET UNE MARQUE Δ SUR LES DIAGRAMMES SCHEMATIQUES, LES VUES EXPLOSÉES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DU CIRCUIT QUI SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT SONT IDENTIFIÉS DANS CE MANUEL. SUIVRE LES PROCÉDURES QUAND LES COMPOSANTS CRITIQUES SONT REMPLACÉS OU LE FONCTIONNEMENT IMPROPRE EST SUSPECTÉ.

SAFETY-RELATED COMPONENT WARNING !!

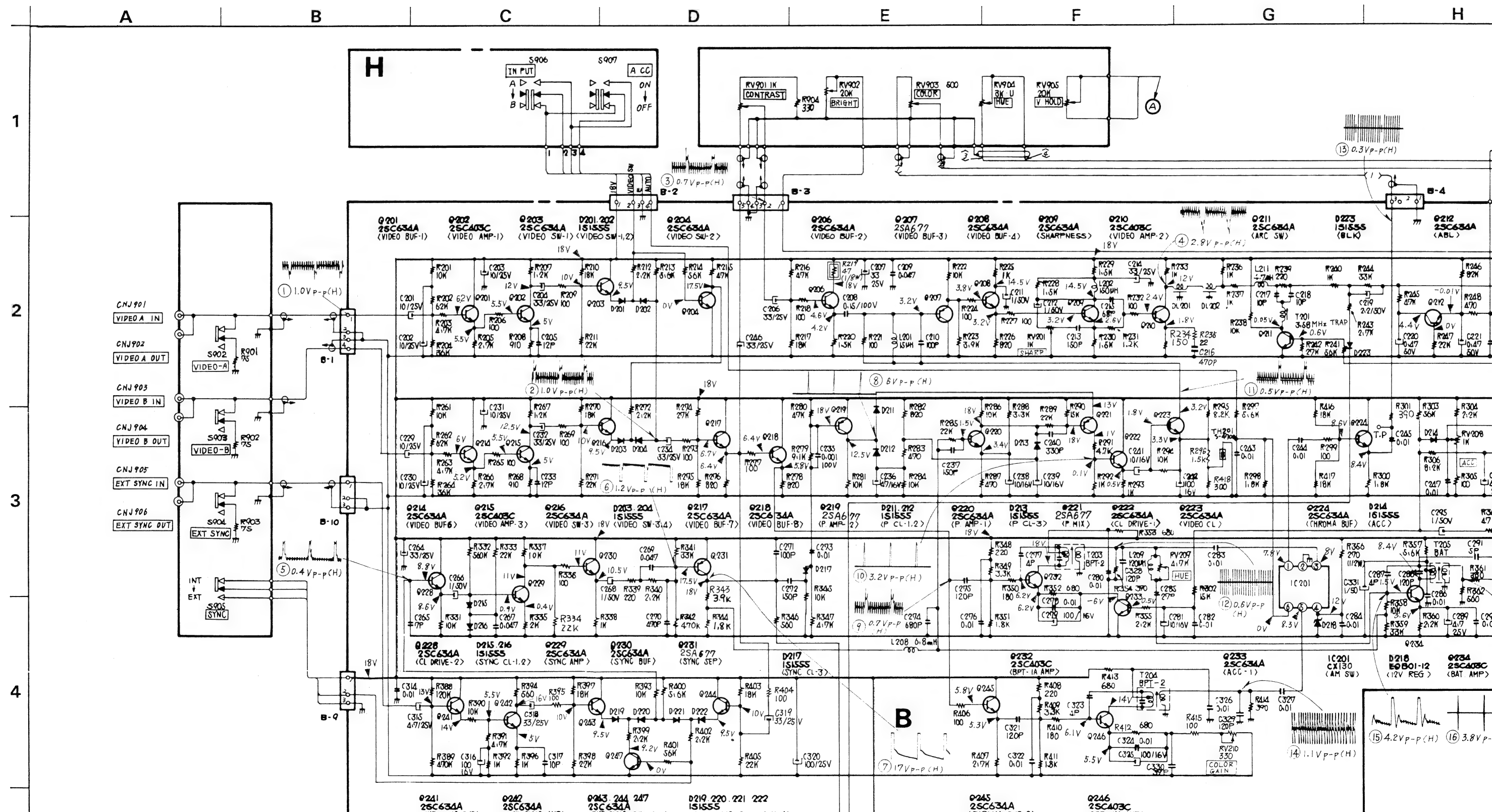
COMPONENTS IDENTIFIED BY SHADING AND MARK Δ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

Note: The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Note:

- All capacitors are in μF unless otherwise indicated.
- All resistors are in ohms, k Ω : 1000 Ω , M Ω : 1000k Ω .
- \square : nonflammable resistor.
- Δ : internal component.
- \square : panel designation.
- The components identified by shading and mark Δ have been carefully factory-selected to satisfy regulations regarding replacement. When replacing components, necessary adjustments indicated by the specified value, change Δ and repeat the adjustment. (Refer to Δ and Δ R535 adjustment or

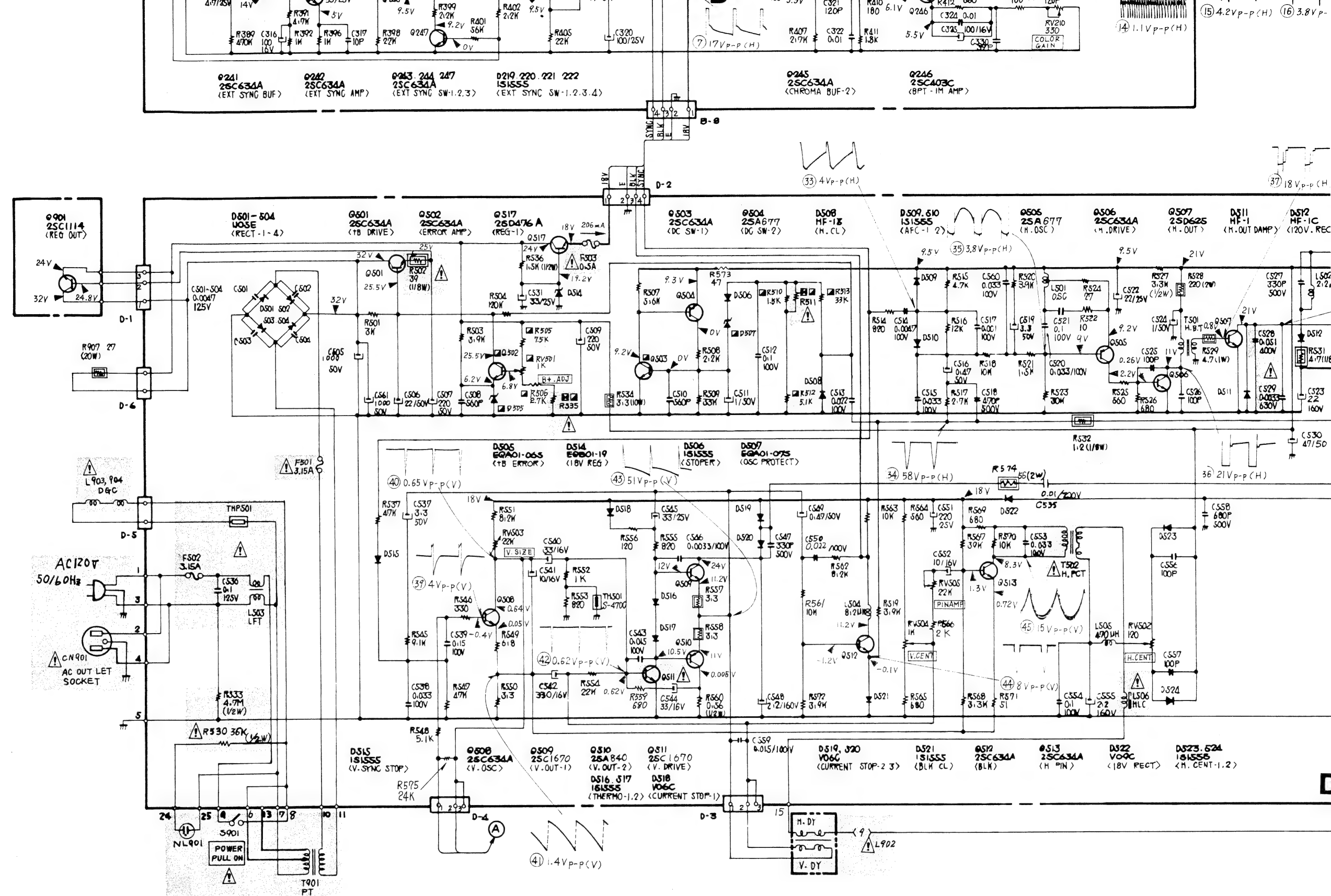


5

6

7

8



Components identified by shading and marking are critical for safety. Replace only with the part specified.

Composants identifiés par une trame et une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Note:

- All capacitors are in μF unless otherwise noted. pF : μF : μF 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, $\frac{1}{4}\text{W}$ unless otherwise noted. $\text{k}\Omega$: 1000Ω , $\text{M}\Omega$: $1000\text{k}\Omega$
- \square : nonflammable resistor.
- \triangle : internal component.
- \square : panel designation.

The components identified by \blacksquare in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

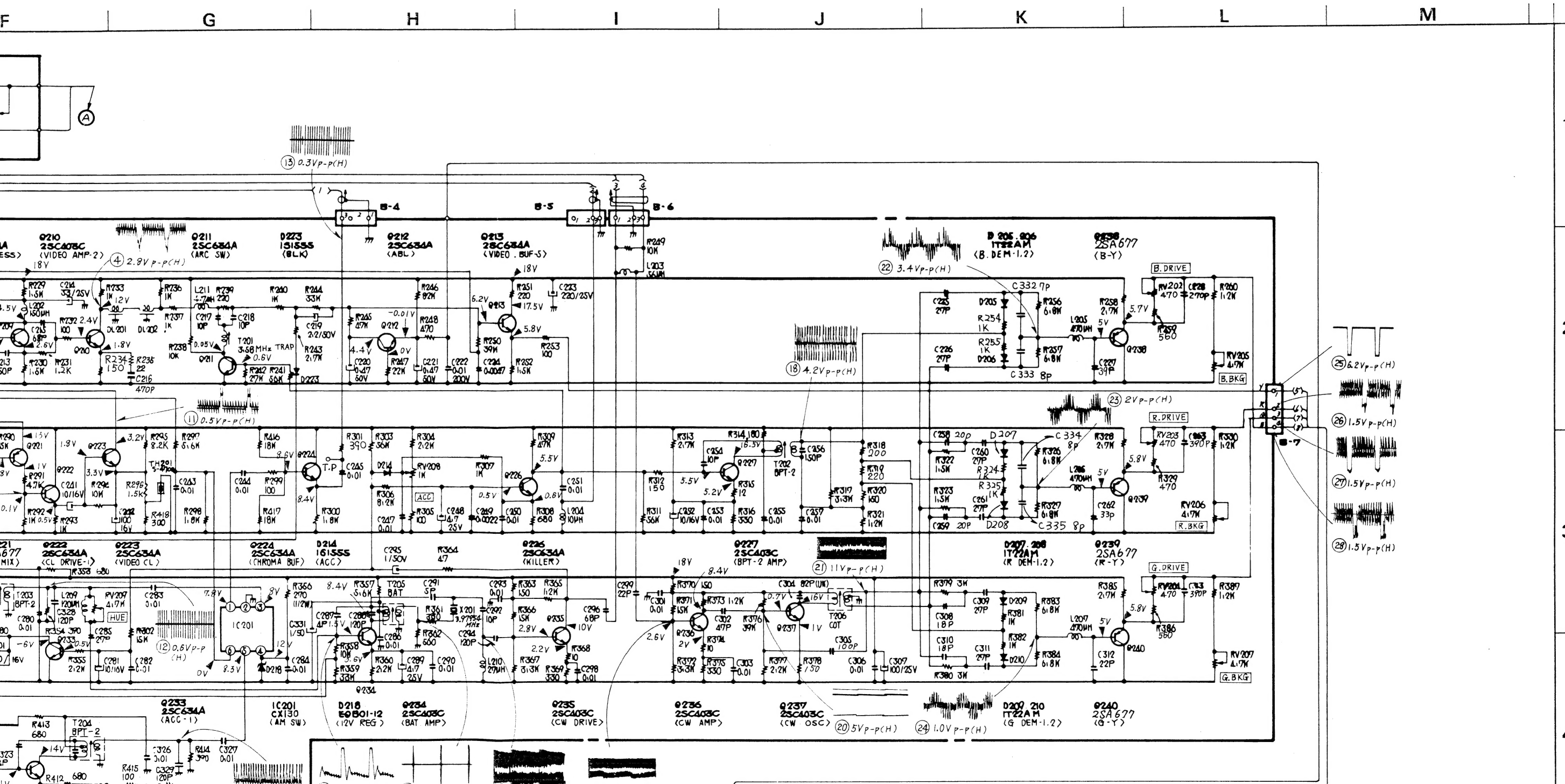
When replacing components identified by \blacksquare , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by \blacksquare and repeat the adjustment until the specified value is achieved. (Refer to \blacksquare R511 adjustment on page 17 and \blacksquare R535 adjustment on page 15.)

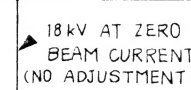
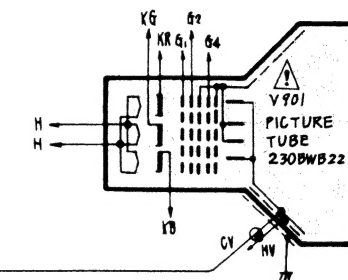
When replacing the part in below table, be sure to perform the related adjustment.

Part replaced (\blacksquare)	Adjustment
D507, Q503, R510, R511, R512, R513, T902 (FBT)	\blacksquare R511 adjustment
D505, Q502, R505, R506, R535, RV501	\blacksquare R535 adjustment

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Readings are taken with a color-bar signal input.
INPUT switch: A position
ACC switch: ON position
SYNC switch: INT position
- Voltages are dc with respect to ground unless otherwise noted.

- Readings are taken with a 20,000-ohm-per-volt VOM.
- Voltage variations may be noted due to normal production tolerances.
- \odot : adjustable without removing cabinet.
- \square : adjustment for repair.

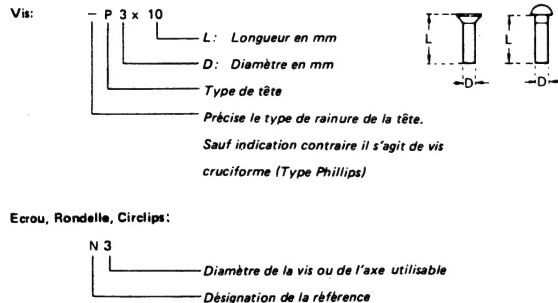




RESISTANCES DE 1/4W AU CARBONE

Ω	Pièce N°	Ω	Pièce N°	Ω	Pièce N°	Ω	Pièce N°	Ω	Pièce N°	Ω	Pièce N°
1.0	1-246-401-00	10	1-246-425-00	100	1-246-449-00	1.0k	1-246-473-00	10k	1-246-497-00	100k	1-246-521-00
1.1	1-246-402-00	11	1-246-426-00	110	1-246-450-00	1.1k	1-246-474-00	11k	1-246-498-00	110k	1-246-522-00
1.2	1-246-403-00	12	1-246-427-00	120	1-246-451-00	1.2k	1-246-475-00	12k	1-246-499-00	120k	1-246-523-00
1.3	1-246-404-00	13	1-246-428-00	130	1-246-452-00	1.3k	1-246-476-00	13k	1-246-500-00	130k	1-246-524-00
1.5	1-246-405-00	15	1-246-429-00	150	1-246-453-00	1.5k	1-246-477-00	15k	1-246-501-00	150k	1-246-525-00
1.6	1-246-406-00	16	1-246-430-00	160	1-246-454-00	1.6k	1-246-478-00	16k	1-246-502-00	160k	1-246-526-00
1.8	1-246-407-00	18	1-246-431-00	180	1-246-455-00	1.8k	1-246-479-00	18k	1-246-503-00	180k	1-246-527-00
2.0	1-246-408-00	20	1-246-432-00	200	1-246-456-00	2.0k	1-246-480-00	20k	1-246-504-00	200k	1-246-528-00
2.2	1-246-409-00	22	1-246-433-00	220	1-246-457-00	2.2k	1-246-481-00	22k	1-246-505-00	220k	1-246-529-00
2.4	1-246-410-00	24	1-246-434-00	240	1-246-458-00	2.4k	1-246-482-00	24k	1-246-506-00	240k	1-246-530-00
2.7	1-246-411-00	27	1-246-435-00	270	1-246-459-00	2.7k	1-246-483-00	27k	1-246-507-00	270k	1-246-531-00
3.0	1-246-412-00	30	1-246-436-00	300	1-246-460-00	3.0k	1-246-484-00	30k	1-246-508-00	300k	1-246-532-00
3.3	1-246-413-00	33	1-246-437-00	330	1-246-461-00	3.3k	1-246-485-00	33k	1-246-509-00	330k	1-246-533-00
3.6	1-246-414-00	36	1-246-438-00	360	1-246-462-00	3.6k	1-246-486-00	36k	1-246-510-00	360k	1-246-534-00
3.9	1-246-415-00	39	1-246-439-00	390	1-246-463-00	3.9k	1-246-487-00	39k	1-246-511-00	390k	1-246-535-00
4.3	1-246-416-00	43	1-246-440-00	430	1-246-464-00	4.3k	1-246-488-00	43k	1-246-512-00	430k	1-246-536-00
4.7	1-246-417-00	47	1-246-441-00	470	1-246-465-00	4.7k	1-246-489-00	47k	1-246-513-00	470k	1-246-537-00
5.1	1-246-418-00	51	1-246-442-00	510	1-246-466-00	5.1k	1-246-490-00	51k	1-246-514-00	510k	1-246-538-00
5.6	1-246-419-00	56	1-246-443-00	560	1-246-467-00	5.6k	1-246-491-00	56k	1-246-515-00	560k	1-246-539-00
6.2	1-246-420-00	62	1-246-444-00	620	1-246-468-00	6.2k	1-246-492-00	62k	1-246-516-00	620k	1-246-540-00
6.8	1-246-421-00	68	1-246-445-00	680	1-246-469-00	6.8k	1-246-493-00	68k	1-246-517-00	680k	1-246-541-00
7.5	1-246-422-00	75	1-246-446-00	750	1-246-470-00	7.5k	1-246-494-00	75k	1-246-518-00	750k	1-246-542-00
8.2	1-246-423-00	82	1-246-447-00	820	1-246-471-00	8.2k	1-246-495-00	82k	1-246-519-00	820k	1-246-543-00
9.1	1-246-424-00	91	1-246-448-00	910	1-246-472-00	9.1k	1-246-496-00	91k	1-246-520-00	910k	1-246-544-00

NOMENCLATURE FERRONNERIE



Désignation de la référence	Forme	Description	Remarques
VIS			
P		Vis à tête cylindrique large	Peut être remplacée par une vis à tête cylindrique (B).
PWH		Vis à tête cylindrique large et rondelle fixe.	Peut être remplacée par une vis à tête cylindrique (B) et une rondelle fixe.
PS PSP		Vis à tête cylindrique large et rondelle à ressort fixe.	Peut être remplacée par une vis à tête cylindrique (B) et une rondelle à ressort.
PSW PSPW		Vis à tête cylindrique large et rondelles plate et à ressort.	Peut être remplacée par une vis à tête cylindrique (B) et une rondelle plate plus une rondelle à ressort.
R		Vis à tête ronde	Peut être remplacée par une vis à tête cylindrique (B).
K		Vis à tête fraisée	
RK		Vis à tête fraisée bombée	
B		Vis à tête cylindrique	
T		Vis à tête ronde large	Peut être remplacée par une vis à tête cylindrique (B).
F		Vis à tête moulée plate	
RF		Vis à tête moulée	
BV		Vis à tête braizer	

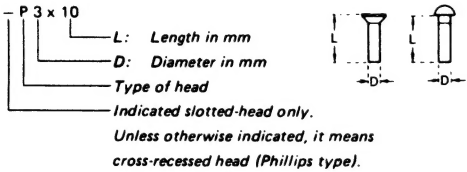
Désignation de la référence	Forme	Description	Remarques
VIS AUTOTARDEUSES			
TA		Vis autotardeuse	ex: TA, P 3 x 10
PTP		Vis autotardeuse à tête cylindrique large.	Peut être remplacée par une vis autotardeuse à tête cylindrique (TA, B).
PTPWH		Vis autotardeuse à tête cylindrique large et rondelle fixe.	Peut être remplacée par une vis autotardeuse à tête cylindrique (TA, B) et une rondelle plate.
PTTWH		Vis à tige filetée et tête cylindrique large avec rondelle fixe.	Peut être remplacée par une vis à tête cylindrique (B) et une rondelle plate.
VIS DE SERRAGE			
SC		Vis de serrage	
SC		Vis de serrage à douille hexagonale	ex: SC 2,6 x 4, douille hexagonale
ECROU			
N		Ecrou	
RONDELLES			
W		Rondelle plate	
SW		Rondelle à ressort	
LW		Rondelle éventail denture intérieure	ex: LW3, intérieure
LW		Rondelle éventail denture extérieure	ex: LW3, extérieure
CIRCLIPS			
E		Circlips	
G		Circlips à griffe	

1/4 WATT CARBON RESISTORS

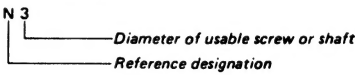
Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.
1.0	1-246-401-00	10	1-246-425-00	100	1-246-449-00	1.0k	1-246-473-00	10k	1-246-497-00	100k	1-246-521-00	1.0M	1-246-545-00
1.1	1-246-402-00	11	1-246-426-00	110	1-246-450-00	1.1k	1-246-474-00	11k	1-246-498-00	110k	1-246-522-00	1.1M	1-210-814-00
1.2	1-246-403-00	12	1-246-427-00	120	1-246-451-00	1.2k	1-246-475-00	12k	1-246-499-00	120k	1-246-523-00	1.2M	1-210-815-00
1.3	1-246-404-00	13	1-246-428-00	130	1-246-452-00	1.3k	1-246-576-00	13k	1-246-500-00	130k	1-246-524-00	1.3M	1-210-816-00
1.5	1-246-405-00	15	1-246-429-00	150	1-246-453-00	1.5k	1-246-577-00	15k	1-246-501-00	150k	1-246-525-00	1.5M	1-210-817-00
1.6	1-246-406-00	16	1-246-430-00	160	1-246-454-00	1.6k	1-246-578-00	16k	1-246-502-00	160k	1-246-526-00	1.6M	1-210-818-00
1.8	1-246-407-00	18	1-246-431-00	180	1-246-455-00	1.8k	1-246-579-00	18k	1-246-503-00	180k	1-246-527-00	1.8M	1-210-819-00
2.0	1-246-408-00	20	1-246-432-00	200	1-246-456-00	2.0k	1-246-580-00	20k	1-246-504-00	200k	1-246-528-00	2.0M	1-210-820-00
2.2	1-246-409-00	22	1-246-433-00	220	1-246-457-00	2.2k	1-246-581-00	22k	1-246-505-00	220k	1-246-529-00	2.2M	1-210-821-00
2.4	1-246-410-00	24	1-246-434-00	240	1-246-458-00	2.4k	1-246-582-00	24k	1-246-506-00	240k	1-246-530-00	2.4M	1-244-754-00
2.7	1-246-411-00	27	1-246-435-00	270	1-246-459-00	2.7k	1-246-583-00	27k	1-246-507-00	270k	1-246-531-00	2.7M	1-244-755-00
3.0	1-246-412-00	30	1-246-436-00	300	1-246-460-00	3.0k	1-246-584-00	30k	1-246-508-00	300k	1-246-532-00	3.0M	1-244-756-00
3.3	1-246-413-00	33	1-246-437-00	330	1-246-461-00	3.3k	1-246-585-00	33k	1-246-509-00	330k	1-246-533-00	3.3M	1-244-757-00
3.6	1-246-414-00	36	1-246-438-00	360	1-246-462-00	3.6k	1-246-586-00	36k	1-246-510-00	360k	1-246-534-00	3.6M	1-244-758-00
3.9	1-246-415-00	39	1-246-439-00	390	1-246-463-00	3.9k	1-246-587-00	39k	1-246-511-00	390k	1-246-535-00	3.9M	1-244-759-00
4.3	1-246-416-00	43	1-246-440-00	430	1-246-464-00	4.3k	1-246-488-00	43k	1-246-512-00	430k	1-246-536-00	4.3M	1-244-760-00
4.7	1-246-417-00	47	1-246-441-00	470	1-246-465-00	4.7k	1-246-489-00	47k	1-246-513-00	470k	1-246-537-00	4.7M	1-244-761-00
5.1	1-246-418-00	51	1-246-442-00	510	1-246-466-00	5.1k	1-246-490-00	51k	1-246-514-00	510k	1-246-538-00	5.1M	1-244-762-00
5.6	1-246-419-00	56	1-246-443-00	560	1-246-467-00	5.6k	1-246-491-00	56k	1-246-515-00	560k	1-246-539-00		
6.2	1-246-420-00	62	1-246-444-00	620	1-246-468-00	6.2k	1-246-492-00	62k	1-246-516-00	620k	1-246-540-00		
6.8	1-246-421-00	68	1-246-445-00	680	1-246-469-00	6.8k	1-246-493-00	68k	1-246-517-00	680k	1-246-541-00		
7.5	1-246-422-00	75	1-246-446-00	750	1-246-470-00	7.5k	1-246-494-00	75k	1-246-518-00	750k	1-246-542-00		
8.2	1-246-423-00	82	1-246-447-00	820	1-246-471-00	8.2k	1-246-495-00	82k	1-246-519-00	820k	1-246-543-00		
9.1	1-246-424-00	91	1-246-448-00	910	1-246-472-00	9.1k	1-246-496-00	91k	1-246-520-00	910k	1-246-544-00		

HARDWARE NOMENCLATURE

Screw:



Nut, Washer, Retaining ring:



Reference Designation	Shape	Description	Remarks
SCREWS			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		brazer-head screw	

Reference Designation	Shape	Description	Remarks
SELF-TAPPING SCREWS			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self-tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
SET SCREWS			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
NUT			
N		nut	
WASHERS			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
RETAINING RINGS			
E		retaining ring	
G		grip-type retaining ring	

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Printed in Japan